

PREMARITAL SEXUAL INTERCOURSE: A MODIFIED APPROACH
TO AXIOMATIC THEORY CONSTRUCTION

BY

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To my wife, Josephine Frazier Davidson, whose steadfast devotion and continuous encouragement made the task of graduate school seem a little easier, and to my sons, John Kenneth Davidson, Jr., and Stephen Wood Davidson, who do not understand why their father had to be away most of the time.

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By

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Chairman: Dr. Gerald R. Leslie
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This study is an empirical investigation of premarital sexual intercourse, utilizing a modified axiomatic approach to theory construction, to develop two middle-range theories of premarital sexual intercourse among females. These theories were grounded in previous empirical research and existing theoretical frames of reference.

A comprehensive review of all relevant research literature involving premarital sexual intercourse among females was made. After review of the available literature, a propositional inventory was developed from existing empirical research.

Using this propositional inventory as a guide, a subsequent list of 22 empirical propositions about premarital sexual intercourse among females was formulated. A number of previously unreported independent variables, such as attitude toward oral-genital sex and attitude toward having

sexual intercourse during the menstrual period, were employed in this investigation of premarital sexual intercourse.

A previously unanalyzed data base of 336 never-married Caucasian college coeds, in River City, a Southern Metropolitan Statistical Area containing a major medical complex, was used to test the foregoing 22 empirical propositions to determine their statistical significance.

The data were treated as two independent samples because of the considerable difference in the percentages of Allied Health coeds and River City coeds who reported having had premarital sexual intercourse.

In the interest of contributing to the eventual elimination of some myths and old wives' tales frequently associated with the menstrual cycle, a description of the medical menstrual history of the respondents is presented. A sexual profile of the respondents is also presented to provide background information for evaluation of the propositions.

By use of a significance level of $p = .05$, 15 of the original 22 empirical propositions tested were found to be either statistically significant or with data in the stated direction of the proposition for at least one of the independent samples.

Those 15 empirical propositions found to be either statistically significant or in the stated direction were used to develop seven new derived propositions by the

process of retrodution. A reapplication of the process of retrodution led to the formulation of four theoretical propostions. Through the utilization of the reference group theory model and the exchange theory model, two of the theoretical propostions were further developed in the cultural milieu permissiveness theory (Theory I) and the affection theory (Theory II) respectively.

These data suggest several new, unique independent variables which have strong theoretical implications for future empirical investigations of premarital sexual intercourse among females.

CHAPTER I

INTRODUCTION

Purpose

Writing in 1959, Goode issued a sweeping indictment of family sociology for its lack of emphasis on theory building. He concluded that the task of theory construction has, in general, been largely neglected in family sociology, although more research reports are published yearly in this substantive area than in almost any other branch of sociology. Most family sociologists have seemed content with working at the descriptive level rather than at the theoretical level (Goode, 1959:179).

This project focuses upon one aspect of family behavior, premarital sexual intercourse. There has been a distinct lack of concern for the utilization and/or development of theory in most empirical investigations of premarital sexual intercourse. In the past, most researchers have been inclined merely to ascertain the level of lifetime participation in premarital sexual intercourse among their respondents.

Christensen, in his discussion of theory development in family sociology, has delineated a typology of scholarly sophistication used in the study of the family. This typology can be readily applied to the existing levels

of sophistication in research that is concerned with premarital sexual intercourse (Christenson, 1969:211-212).

This typology can be applied to studies of premarital sexual intercourse in the following manner:

Argument by assertion. Value judgments are combined with moralistic impressions as to how things are thought to exist in reality. Some of the earlier, moralistically toned research monographs on premarital sexual intercourse, such as the work of Exner (1915), fit into this category.

Argument by reason and logic. This category can, in essence, be labeled as armchair philosophizing, with no attempt being made to utilize any empirical evidence. A recent notable example of this approach is Bell's Premarital Sex in a Changing Society (1966).

Empirical proof-seeking. This procedure attempts to use empirical evidence to substantiate preconceived notions of, or existing relationships among, variables. An outstanding example of this particular procedure is a study by Bromley and Britten (1938) which acknowledged "the universality of the current sex revolution across all educational and social classes."

Empirical truth-seeking. This mode includes a heavy reliance upon the scientific method. Empirical evidence is utilized with an absence of bias in the interpretation of data. Clayton's (1969) investigation of the relationship between religious orthodoxy and premarital sexual intercourse may serve as a primary example of this mode.

The publication of Sexual Behavior in the Human Male (Kinsey, Pomeroy, and Martin, 1948) and, subsequently, Sexual Behavior in the Human Female (Kinsey, Pomeroy, Martin, and Gebhard, 1953) provided the major impetus for research on premarital sexual intercourse to move from Christensen's category of empirical proof-seeking to the category of empirical truth-seeking. Prior to these publications, most research on premarital sexual intercourse could be classified in the category of empirical proof-seeking. Most researchers attempted only to substantiate their own beliefs regarding the extent of lifetime premarital sexual intercourse and the variables found to be associated with participation in premarital sexual intercourse. The following year, Alfred M. Mirande (1968) published a paper using reference group theory as a theoretical perspective for the study of premarital sexual intercourse. For the third annual Burgess Award Lecture in 1968, Harold T. Christensen outlined his newly developed "theory of relative consequences" for the study of premarital sexual intercourse. Thus far, the efforts of Reiss, Mirande, and Christensen have represented the major thrust in the area of theory building for the study of premarital sexual intercourse.

Reiss developed a series of seven propositions relating to premarital sexual permissiveness. These propositions are as follows:

1. The lower the traditional level of sexual permissiveness in a group, the greater the likelihood that social forces will alter individual levels of sexual permissiveness. (Reiss, 1967:160)

White females, for example, will be particularly affected by such independent variables as church attendance, love affairs, and romantic love.

2. The stronger the amount of general liberality in a group, the greater the likelihood that social forces will maintain high levels of sexual permissiveness. (Reiss, 1967:161)

This general liberality trait includes liberality on such questions as political, economic, and religious issues.

Persons possessing high degrees of general liberality will be, typically, more receptive to social attitudes that may encourage and maintain high levels of sexual permissiveness.

3. To the extent that individual ties to the marital and family institutions differ, individuals will tend to display a different type of sensitivity of permissiveness to social forces. (Reiss, 1967:161)

Males and females will tend to exhibit fundamental differences in the effect of courtship patterns upon sexual permissiveness. Women will tend to utilize romantic love as a justification for a particular level of sexual permissiveness.

4. The higher the overall level of permissiveness in a group, the greater the extent of equalitarianism within the abstinence and double standard classifications. (Reiss, 1967:162)

Increased permissiveness will lead to greater equality between the sexes with respect to participation in premarital sexual intercourse.

5. Differences in the potential for permissiveness in a basic set of parentally derived values are a key determinant of the number, rate, and direction of changes in premarital sexual standards and behavior. (Reiss, 1967:163)

6. There is a general tendency for the individual to perceive parents' permissiveness as a low point on a permissiveness continuum and peers' permissiveness as a high point, and to place himself closer to peers, particularly to those regarded as close friends. (Reiss, 1967:162)

Those individuals who perceive themselves as similar to parents in values will tend to be low on a scale of permissiveness whereas those more similar to peers will tend to be high in permissiveness.

7. The greater the responsibility for other family members and/or the less the courtship participation, the greater the likelihood that the individual will be low on permissiveness. (Reiss, 1967:163)

It follows from this proposition that the more emotionally involved one becomes with the courtship partner, the less influence parents will have in the final determination of sexual behavior.

From the foregoing propositions, Reiss formulated the following theory of premarital sexual permissiveness:

The degree of acceptable premarital permissiveness in a courtship group varies directly with the degree of autonomy of the courtship and with the degree of acceptable premarital sexual permissiveness in the social and cultural setting outside the group. (1967:164)

Each person has a biological sex drive which encourages sexual activity and physical release. In an autonomous courtship system, a greater likelihood exists that this biological sex drive will find expression through premarital sexual intercourse. The youth of today, according to Reiss (1967), have both a sense of adventure and a general liberality toward sex. Reiss, however, cautions the reader against

assuming that autonomy of courtship necessarily promotes promiscuity. Females are known to place certain limitations on their sexual activity in line with the degree of seriousness of the courtship stage.

It is unfortunate that Reiss has chosen the term permissiveness for the development of his theory, as this term carries value connotations for many persons. Nevertheless, Reiss has made a major contribution to theory building in the study of premarital sexual intercourse.

Reference group theory, according to Mirande, suggests that the behavior of a person will be consistent with the expectations of the group which the individual uses as a reference point. Mirande argues that reference group theory should be applied to the study of premarital sexual behavior in hopes of promoting further understanding of the various patterns of sexual activity exhibited by college students. Mirande has hypothesized that "The sexual behavior of an individual will tend to be a function of the expectations of his peer reference group, irrespective of the direction of the influence" (Mirande, 1968:573). This hypothesis has been substantiated through empirical investigation using college students as respondents. One is able to conclude from Mirande's data that students are influenced by the behavior and expectations of close associates. While persons are influenced by all their peers, the evidence indicates that they seek out peer groups which reinforce their own predispositions toward sexual activity. While this theory seems plausible in light

of the available evidence, much additional research is needed to justify using the reference group perspective, by itself, in attempts to explain premarital sexual intercourse.

Christensen's theory of relative consequences consists of six propositions, as follows:

1. Certain relationships among variables in the sexual realm verge upon universality, while others tend to be culture bound. (Christensen, 1969:216)

This proposition assumes that cultural norms are viewed as a confounding variable, that is, operating to alter the behavior itself as well as the consequences of such behavior.

2. Sexual norms influence behavior, making for essential consensus and conformity within a given society; yet there is always some individual deviation, and this occurs at the levels of both attitudes and behavior. (Christensen, 1969:216)

In a permissive society one would expect to find permissive behavior, and in a restrictive society one would expect to find nonpermissive behavior. One should thus be able to hypothesize that some persons may exist in the society whose behavior is out of step with their own standards. In other words, a value-behavior discrepancy is said to exist for such persons.

3. Movement toward greater permissiveness in sexual norms tends to converge both attitudes and behavior as between males and females but to encourage the persistence of certain subcultures. (Christensen, 1969:216)

Females appear to be much more receptive to shifts toward liberality of attitudes than males. The sexual attitudes and behavior of females have more and more tended to approximate those of males, particularly in Scandinavian countries.

In societies where the range of tolerance for sexual behavior is great, subcultures play a much greater role in the determination of such behavior than in restrictive societies such as that of the Mormons in Utah.

4. Deviations from an arbitrarily assumed restrictive sex standard decrease with restrictiveness in the culture except where love and/or commitment intervene. (Christensen, 1969:217)

One may expect that approval of premarital sexual intercourse would increase as the level of love and/or commitment between potential sex partners increased.

5. Deviations from actual sex norms, as these are prescribed by existing societies and internalized within their constituent members, increased with restrictiveness in the culture. (Christensen, 1969: 218)

As the restrictiveness of the culture increases, violations of one's own standards concerning premarital sexual intercourse are likely to increase. Christensen has termed this phenomenon value-behavior discrepancy.

6. Negative consequences deriving from premarital coitus are positively related to these behavioral deviations from norms, which means that they increase with restrictiveness in the culture. (Christensen, 1969:218)

The negative consequences of guilt--the hurried weddings upon discovery of pregnancy, and later divorce because of premarital pregnancy--would be expected to be much more frequent in restrictive cultures.

Christensen derived from the aforementioned propositions the following theory of relative consequences:

Both the behavior itself and the resulting effects of premarital sexual intimacy are in part dependent upon differing cultural norms, plus the conversion of these

norms into individual values; and the negative consequences are greatest in restrictive societies, where behavior is most deviant from existing standards. (Christensen, 1969:219)

In a recent publication entitled A Decade of Family Research and Action (Cannon and Long, 1971), an intellectual challenge was issued for the development of further theory relating to premarital sexual intercourse. After a thorough and comprehensive review of research reports on premarital sexual intercourse published during the decade of the 1960s, Cannon and Long surmised that, with the notable exceptions of Reiss and Christensen, little attempt has been made to base research on existing theoretical orientations. Unfortunately, many existing propositions lack any integration and linkage with propositional statements developed in other areas of sociology. To this list of theorists in the substantive area of premarital sexual intercourse, it would seem appropriate to add the names of Clayton (1969, 1972) and Mirande (1968).

Later studies have consistently failed to support the propositions contained in Reiss's theory (Heltsley and Broderick, 1969; Middendorp, Brinkman, and Koomen, 1970; Maranell, Dodder, and Mitchell, 1970). However, in rejoinders to these published reports, Reiss has argued that methodological problems in the research designs have resulted in the propositions not being subjected to adequate testing (Reiss, 1969, 1970). Christensen's theory has, as yet, not undergone completely adequate field testing to determine its theoretical value.

The purpose of this dissertation is to develop theoretical propositions about premarital sexual intercourse using the retroduction process as a technique of theory construction, as suggested by the works of Berardo (1969) and Zetterberg (1965). This approach is also somewhat comparable to the work of Bartz and Nye (1970) in studying early marriages. Bartz and Nye listed at least two distinct advantages to this approach in theory building. First, theory constructed in this manner will be based upon existing research. Secondly, this technique allows easy pinpointing of gaps in available research (Zetterberg, 1965; Bartz and Nye, 1969).

This approach, suggested by the works of Zetterberg, Berardo, and Bartz and Nye, should lead to the development of one or more partial or middle-range theories (Gibbs, 1972; Merton, 1957).

Definition of Concept

Premarital sexual intercourse, for the purpose of this dissertation, will be defined as the intromission of the penis by a never-married male into the vaginal tract of a never-married female. The absence of orgasm on the part of the male and/or female does not preclude the use of this definition. Any form of heterosexual, noncoital sex is, however, specifically excluded by this particular definition. From a semantic standpoint, the use of the term premarital creates certain terminological problems (Gibbs, 1972;

Zetterberg, 1965). By definition, this term is usually interpreted to mean that which precedes marriage; yet, not all persons in an unmarried state who engage in sexual intercourse with each other eventually marry. The term nonmarital coitus might seem to be a more appropriate descriptive term. However, conventionality of usage in the sociological literature dictates the use of the term premarital sexual intercourse. Further terminological confusion results when "premarital sexual intercourse" is used to describe a never-married person who is having sexual intercourse with a married person. Conventionality would seem to indicate that for the former it is "premarital" and for the latter it is "extra-marital" sexual intercourse. Since we shall be dealing with the sexual behavior of the unmarried person only, that problem need not concern us (Gibbs, 1972).

Plan of the Dissertation

This dissertation will consist of four parts. In the first part, a thorough review of all reported research literature relevant to the stated problem will be made. A comprehensive list of empirical propositions will then be made using each of the independent variables referred to in the research literature. It is expected that, in many cases, empirical propositions will have to be extracted from the existing reported data, because formally stated propositions may not appear in the research reports. If more than one

citation is found for the same proposition, a notation will be made as to whether the additional citations lend support to, or tend to refute, the proposition. Only empirically based research will be used to pinpoint independent variables for inclusion in the list of empirical propositions.

The second part will consist of subjecting certain of these empirical propositions to further empirical test. An unanalyzed data base of 336 never-married Caucasian females, which consists of 140 River City College coeds and 196 Allied Health Science coeds from River City College, Southern Medical School, and River City Hospital's School of Nursing, is available for this purpose.* These data will be treated, for the purpose of this data analysis, as two independent samples. Appropriate statistical techniques will be utilized to determine the level of significance and the degree of association between the independent variables and the dependent variable of premarital sexual intercourse found in each of the empirical propositions.

In the third part of the dissertation, those empirical propositions found to be statistically significant will be combined into theoretical propositions using the process of retroduction. This process involves the level of abstraction of the independent variable, thus permitting certain propositions with commonality of concepts to be combined.

*In the interest of preserving the anonymity of respondents, the foregoing pseudonyms will be used throughout this dissertation.

The fourth part will consist of ascertaining the resemblance of these theoretical propositions to any existing theoretical frames of reference in sociological theory.

". . . [T]he goal of theory construction is the creation or identification of order, and success can be judged by the predictive power of the theory" (Gibbs, 1972:305). If any empirical regularities are discovered, they will be treated and viewed as the establishment of possible theoretical perspectives for the study of premarital sexual intercourse, rather than as models of causation or explanation.

CHAPTER II

REVIEW OF THE LITERATURE

Current Status of Research

Over the years, a number of different independent variables have been utilized to study the likelihood of participation in premarital sexual intercourse. Some of the more frequently used variables will be briefly explored to demonstrate their relevance for a study of premarital sexual intercourse.

Age has been one of the most frequently employed variables. A basic assumption in the use of this variable has been that the older the person, the more lifetime exposure he or she has had to the possibility of participating in premarital sexual intercourse. Early studies indicated that, as age increased, the incidence of premarital sexual intercourse increased (Terman, 1938; Kinsey et al., 1948; Kinsey et al, 1953). Other more recent studies have considered the age of the individual per se as an oversimplification of the possible relationship with premarital sexual intercourse. A more logical approach seems to be to consider age at marriage. After all, the length of the lifetime exposure pattern is, essentially, a function of the age of a person at the time of marriage. Chilman (1966), in using this approach, found that early marriage for females

was associated with a greater likelihood of ever engaging in premarital sexual intercourse, but that late marriage for males was associated with a greater likelihood. While this variable has been used in several studies, no consistent direction has been established.

Terman (1938) found that early age at menstruation was associated with a higher incidence of premarital sexual intercourse among females. The rationale was that early maturing females would experience physiological desire for sexual intercourse earlier; therefore they would have a longer lifetime interest and exposure to the possibility of premarital sexual intercourse. Another possible interpretation of these data is that females who reach physiological maturity early change their reference groups, thereby creating the possibility of having peer group approval for sexual intercourse prior to marriage.

Individuals who begin to date at a very early age also were found to have participated in premarital sexual intercourse in greater proportions than persons who begin to date at a later age (Bell and Chaskes, 1970). Again, lifetime exposure to the possibility of sexual experience appears to be a key element in this finding.

In more recent years, considerable research interest has been directed toward the theoretical typology of premarital sexual standards constructed by Ira Reiss. Persons accepting premarital sexual intercourse as a personal standard of behavior have tended to exhibit higher rates of

participation in premarital sexual intercourse. Females, in particular, have exhibited a higher incidence of premarital sexual intercourse if their personal standards included sexual intercourse before marriage (Christensen and Gregg, 1970).

Many persons opposing the dissemination of contraceptive information have argued that such information leads to an increased incidence of premarital sexual intercourse; yet only one author has chosen to use this variable for research purposes. Davis (1929) found higher rates of premarital sexual intercourse among females with contraceptive information.

Another variable appearing in some form in much recent research has been the courtship stage of the respondent. Numerous studies have indicated that females associate love and affection with potential participation in premarital sexual intercourse. As they progress toward more serious and meaningful relationships with dating partners, they become much more receptive to the idea of engaging in premarital sexual intercourse. Using the courtship stage as a variable in the incidence of premarital sexual intercourse has taken a variety of forms. Long engagements have been found to be associated with a higher incidence of premarital sexual intercourse for females (Burgess and Wallin, 1953). Courtship stage was used as a variable in a study reported by Bell and Blumberg (1959). As the seriousness of the dating relationship increased, the incidence of premarital sexual intercourse among females increased geometrically.

In a later study, Bell and Chaskes (1970) reported that, as the number of times females had gone steady increased, the probability that they had participated in premarital sexual intercourse greatly increased. They also found that the greater the number of different boys females have dated, the greater the probability that they have engaged in premarital sexual intercourse. A greater number of different dating partners increased the likelihood of a serious relationship developing for females, along with an increase in the absolute number of emotionally involved lifetime situations (going steady) in which premarital sexual intercourse might occur. A variation in the usual findings relative to the stage of courtship as a variable was reported by Kanin (1960). He found that a short period of exclusive dating was more likely to lead to premarital sexual intercourse than a long period of exclusive dating. The existence of an engagement versus the nonexistence of an engagement greatly increased the probability that premarital sexual intercourse would occur for females (Freedman, 1965).

Presence of strict parental discipline in the home was associated with a low incidence of premarital sexual intercourse for females in data reported by Terman (1938:335). It is of interest to note that, apparently, no other sex researcher has utilized this variable in studies of premarital sexual intercourse. Based on other nonsexual data, many researchers would argue that strict parental discipline seems

more likely to increase the incidence of premarital sexual intercourse among females than to lessen the likelihood of its occurrence.

The educational level of the respondent has been frequently used as a variable in research on premarital sexual intercourse. Some researchers argue that educational level should not be considered as a variable distinct from that of socioeconomic status. However, its separate usage can be justified in terms of its apparent opposite effect for males and females. Males with low levels of educational achievement have generally indicated higher participation rates for premarital sexual intercourse than females with low levels of educational achievement (Kinsey, 1953:293-296).

Clayton found that male fraternity members had higher rates of participation in premarital sexual intercourse than independent males. Sorority members, though, had a lower incidence of premarital sexual intercourse than did independent females (Clayton, 1969:471-473). The sorority members were very concerned about the image and reputation of their organizations on the campus where the survey had been conducted. They had elaborate sets of procedures for handling deviations from their organizational norms.

Happiness of the parents' marriage was found to be associated with the incidence of premarital sexual intercourse by Christensen and Carpenter. This variable was significant in the stated direction for Intermountain and Midwestern University samples only. Students who reported

happy parental marriages tended to have lower rates of participation in premarital sexual intercourse when contrasted with students who reported unhappy parental marriages (Christensen and Carpenter, 1962:67-69). This variable seems to imply that young people found in unhappy home environments will likely turn to other sources of attention and affection.

Kaats and Davis concluded from their data that physical attractiveness on the part of females increased the likelihood that they would participate in premarital sexual intercourse. Physical attractiveness would appear to increase the theoretical number of life chances females may have to participate in premarital sexual intercourse (Kaats and Davis, 1970:395-396).

The variable of religion has been used down through the years in investigations of the general incidence of premarital sexual intercourse. The traditional religious breakdown of Protestant, Catholic, and Jew has been employed most frequently in studying the relationship between premarital sexual intercourse and religious affiliation. Most studies have indicated the highest incidence of premarital sexual intercourse for male and female Catholics (Bell and Blumberg, 1959; Peretti, 1969). With one or two notable exceptions, Jews have tended to exhibit the lowest incidence of premarital sexual intercourse (Hohman and Schaffner, 1947). These findings could possibly be a function of the availability of eligible dating and marriage partners according to one's religious preference. Courtship folklore supports

the claim that often Jewish males seduce Gentile females to preserve the Jewish females' virginity for marriage. The available data do not permit either acceptance or rejection of this contention. The data do, however, indicate that Jewish females' virginity is more often preserved until marriage, whatever the reasons may be.

Numerous attempts have been made to ascertain a relationship between premarital sexual intercourse and religiosity. One of the major difficulties with this variable is the measurement of the concept of religiosity. Frequency of church attendance has been used in many instances as an index of devoutness in religious faith. Yet, researchers have argued down through the years that church attendance itself is a poor index of religiosity. These considerations notwithstanding, frequency of church attendance has been associated with a low incidence of premarital sexual intercourse (Burgess and Wallin, 1953:339). Using the Putney and Middleton Likert-type scale of religious orthodoxy (defined herein as religiosity), Clayton found that high religious orthodoxy scores were associated with low incidences of premarital sexual intercourse for independent males and females but not for male and female members of Greek-letter social organizations (Clayton, 1969:470-472). Burgess and Wallin, among others, also noted that persons with no religious preference indicated the highest incidence of premarital sexual intercourse (Burgess and Wallin, 1953:339).

Early researchers used the variable of rural-urban residence in studies of premarital sexual intercourse. A higher incidence of premarital sexual intercourse was found to be associated with an urban background (Kinsey et al., 1948: 455). Today, with the gradual diminution of previous rural-urban differences, this variable is no longer considered relevant by most researchers.

While considerable variation exists in the particular technique used in evaluating social class, most researchers are in agreement that the incidence of premarital sexual intercourse is much greater among persons from the lower class as contrasted with persons from the middle class (Kinsey et al., 1953; Diamant, 1970; Hohman and Schaffner, 1947; Kanin, 1960). Bell and Chaskes (1970), however, have recently reported that no significant differences exist in the incidence of premarital sexual intercourse among respondents when using father's occupation and father's educational level as indices of social class.

Review of the Literature

Beginning with the year 1915, all available empirical research concerned with premarital sexual intercourse has been carefully reviewed. This comprehensive review of the relevant research literature has provided a somewhat lengthy inventory of empirical propositions. In many instances, it has been necessary to formally construct empirical propositions from the independent variables appearing in the

research reports, as many authors chose not to place variables in a propositional format.

For the sake of clarity, consistency in the wording of the empirical propositions has been utilized wherever possible. This structural requirement has led to a rewording of many existing propositions. Nevertheless, the integrity of each proposition has been maintained by not altering the stated direction of the independent variable. The cited reference for each empirical proposition indicates where support, and/or lack of support, may be found in the research literature for a particular independent variable.

Inventory of Empirical Propositions for
Never-Married Females

1. There is a direct relationship between age and having had premarital sexual intercourse (supported by Bergen, 1972; Kinsey et al., 1953; Ramsey, 1943; Vener, Stewart, and Hager, 1972; not supported by Eastman, 1972).
2. There is an inverse relationship between age at marriage and having had premarital sexual intercourse (supported by Chilman, 1966).
3. There is an inverse relationship between age at first menstruation and having had premarital sexual intercourse (supported by Terman, 1938).
4. There is an inverse relationship between age at first date and having had premarital sexual intercourse (supported by Bell and Chaskes, 1970; Freeman and Freeman, 1966).

5. There is a direct relationship between having a personal standard which includes premarital sexual intercourse and having had premarital sexual intercourse (supported by Christensen and Gregg, 1970; Freeman and Freeman, 1966).
6. There is a direct relationship between contraceptive knowledge and having had premarital sexual intercourse (supported by Davis, 1929).
7. There is a direct relationship between perceived norms of sexual permissiveness among others in general and having had premarital sexual intercourse (supported by Teevan, 1972; not supported by Clayton, 1972).
8. There is a direct relationship between perceived norms of sexual permissiveness and having had premarital sexual intercourse (supported by Freeman and Freeman, 1966; Teevan, 1972; not supported by Clayton, 1972).
9. There is a direct relationship between involvement in a love relationship and having had premarital sexual intercourse (supported by Bell and Blumberg, 1959; Bergen, 1972; Christensen and Gregg, 1970; Eastman, 1972; Freedman, 1965; Freeman and Freeman, 1966; Kanin, 1960; Karen, 1959; Locke, 1951; Prince and Shipman, 1960).
10. There is a direct relationship between length of engagement and having had premarital sexual intercourse (supported by Burgess and Wallin, 1953).

11. There is a direct relationship between the number of different boys dated and having had premarital sexual intercourse (supported by Bell and Chaskes, 1970).
12. There is an inverse relationship between having had strict discipline in the home and having had premarital sexual intercourse (supported by Bergen, 1972; Terman, 1938).
13. There is a direct relationship between educational level and having had premarital sexual intercourse (supported by Bergen, 1972; Kinsey et al., 1953).
14. There is an inverse relationship between grade point average and having had premarital sexual intercourse (supported by Bergen, 1972; Freeman and Freeman, 1966).
15. Females enrolled in Colleges of Arts and Sciences are more likely to have had premarital sexual intercourse than are females enrolled in Colleges of Education (supported by Bergen, 1972).
16. Independents are more likely to have had premarital sexual intercourse than are sorority members (supported by Clayton, 1969).
17. There is a direct relationship between being estranged from parents and having had premarital sexual intercourse (supported by Teevan, 1972).
18. There is a direct relationship between living alone and having had premarital sexual intercourse (supported by Arafat and Yorborg, 1973).

19. There is a direct relationship between having parents with an unhappy marriage and having had premarital sexual intercourse (supported by Christensen and Carpenter, 1962).
20. There is a direct relationship between physical attractiveness and having had premarital sexual intercourse (supported by Kaats and Davis, 1970).
21. Protestant females are more likely to have had premarital sexual intercourse than are Jewish females (supported by Althoff and Nussel, 1971; Arafat and Yorburg, 1973; Freeman and Freeman, 1966).
22. Catholic females are more likely to have had premarital sexual intercourse than are Protestant females (supported by Bell and Blumberg, 1959; Freeman and Freeman, 1966; Bergen, 1972; Peretti, 1969; not supported by Arafat and Yorburg, 1973; Kinsey et al., 1953).
23. There is an inverse relationship between church attendance and having had premarital sexual intercourse (supported by Bauman, 1973; Bergen, 1972; Burgess and Wallin, 1953; Freeman and Freeman, 1966; Kinsey et al., 1953; Prince and Shipman, 1960).
24. There is an inverse relationship between sex guilt and having had premarital sexual intercourse (supported by Mosher and Cross, 1971).
25. There is a direct relationship between urban residential background and having had premarital sexual intercourse (supported by Bergen, 1972; Kinsey et al., 1953).

26. Females from the East are more likely to have had premarital sexual intercourse than are females from the Deep South (supported by Bergen, 1972).
27. Females from the East are more likely to have had premarital sexual intercourse than are females from the Midwest (supported by Bergen, 1972).
28. Females from the Far West are more likely to have had premarital sexual intercourse than are females from the Deep South (supported by Bergen, 1972).
29. Females from the Far West are more likely to have had premarital sexual intercourse than are females from the Midwest (supported by Bergen, 1972).
30. There is a direct relationship between lower-class values and having had premarital sexual intercourse (supported by Kinsey et al., 1953, for females when using level of education as an index; not supported by Bell and Chaskes, 1970; Bergen, 1972, for females when using level of education as an index).
31. There is an inverse relationship between father's social class and having had premarital sexual intercourse (supported by Vener et al., 1972).
32. There is a direct relationship between use of marijuana and having had premarital sexual intercourse (supported by Arafat and Yorburg, 1973; Bell and Clavan, 1973; Milman and Su, 1973; Walters, Goethals, and Pope, 1972).

33. There is a direct relationship between use of alcoholic beverages and having had premarital sexual intercourse (supported by Bell and Clavan, 1973; Milman and Su, 1973).
34. There is a direct relationship between use of narcotics (LSD, heroin, etc.) and having had premarital sexual intercourse (supported by Arafat and Yorborg, 1973; Milman and Su, 1973; Walters et al., 1972).

Studies Not Utilized

A number of available sources could not, logically, be utilized for the purpose of extracting empirical propositions for this dissertation. Among those sources not included was the frequently cited work of Ira Reiss entitled The Social Context of Premarital Sexual Permissiveness (1967). This work was not selected because of the rather unusual stance that Reiss takes with regard to the attitude versus behavior dilemma. "Hopefully, by this time in the development of social science we have discarded the primitive notion that behavior rather than attitude is more of a 'true' measure of a relationship" (Reiss, 1967:11). He then proceeds to equate attitude with behavior, thus assuming that one can ascertain behavior by asking about attitude.

Several sources were not included because of cultural variation in the data which make meaningful comparisons with data from the United States methodologically unsound

(Bock and Iutaka, 1970; Chesser, 1956; Hobart, 1972; Slater, 1951; Schofield, 1965). A substantial number of sources were rejected because no specific independent variables were utilized in the research designs (Achilles, 1923; Bromley and Britten, 1938; Cuber and Harroff, 1965; Herz, 1970; Hughes, 1926; Kanin, 1957, 1969; Landis and Landis, 1953; Macklin, 1972; Packard, 1968; Peterson, 1938; Robinson, King, Dudley and Clune, 1968; Robinson, King, and Balswick, 1972). Still other sources were not used because of the atypical nature of samples, such as respondents being physically handicapped (Landis and Bolles, 1942; Merrill, 1918; Schwartz, 1971; Strakosch, 1934). Finally, a large number of sources were omitted from further consideration because of serious methodological problems such as small "N", absence of statistical tests of significance, or nonrepresentative sampling procedures (Burchinal and Bock, 1959; Dickinson and Beam, 1934; Exner, 1915; Greene, 1964; Hamilton, 1929; Kirkendall, 1961; Kronhausen and Kronhausen, 1960; Lower, 1972; Luckey and Nass, 1969; Pearl, 1925; Peck and Wells, 1923; Taylor, 1933).

Methodological Problems in Current Literature

Considerable difficulty exists with respect to uniformity of definitions employed in gathering and reporting empirical data on premarital sexual intercourse. Some authors have questioned the idea of whether fellatio and and cunnilingus may be appropriately counted as sexual

intercourse since these two sexual techniques are often found in heavy petting (Freedman, 1965). Should homosexual experiences that have led to orgasm on the part of the respondent (Kinsey et al., 1948) be counted as part of the total sexual intercourse experience? Is the true incidence of premarital sexual intercourse somewhat underestimated by virtue of the exclusion of fellatio, cunnilingus, and homosexual experiences which result in orgasm for the respondent?

The use of the terms virgin and nonvirgin often provoke a maze-like effect in the research. To report a female as a nonvirgin after she has had sexual intercourse only one time as part of lifetime behavior raises some serious theoretical questions. Should researchers be interested primarily in current behavior or in total lifetime behavior? Or should data be gathered on both lifetime and current rates of participation in premarital sexual intercourse? If only current behavior is studied, the percentage of college females reporting participation in premarital sexual intercourse drops drastically (Clayton, 1969).

There is a general lack of agreement as to the meaning of the term technical virgin, and thus it is variously used by many authors. Does it mean (Bromley and Britten, 1938) caressing the breasts, manipulation of the genital area, or any and all types of sexual stimulation leading to an orgasm, except intromission of the penis into the vagina?

Often in the design of the research project, previous research either has been ignored, or not properly applied, in the development of the research design. Many of the early researchers made no effort at all to review the relevant literature in formulating the research design (Davis, 1929; Dickinson and Beam, 1934).

Another critical problem in research on premarital sexual intercourse has been the inability and/or unwillingness on the part of researchers to utilize representative samples in their work. Most of the existing data on premarital sexual intercourse are concerned with white college students, and the samples are largely nonrepresentative and nonrandom. Often one is unable even to generalize the data to other students at the same college or university, not to mention the prospect of other colleges and universities (Kirkendall, 1961; Kanin, 1960). A recurring problem is that of small sample size, particularly when the data are categorized and tabulated. Percentages often are calculated based on small Ns, with the results being very misleading to an untrained and unsophisticated reader (Freedman, 1965).

Many of the problems associated with nonrepresentative and nonrandom sampling can be attributed directly to the lack of financial and administrative support from colleges and universities for research about premarital sexual intercourse. Consequently, most researchers have chosen to use whatever sample groups they have immediate access to,

regardless of size and/or characteristics. Thus, the rather extensive practice of utilizing volunteer subjects in the gathering of data on premarital sexual intercourse still exists today. A crucial question (Kaats and Davis, 1970) then becomes, to what extent are respondents "coerced" into participating in surveys against their wills? Does a student in a classroom setting feel compelled to participate in such a study if requested to do so by his instructor? Would he or she fear that grade reprisal would occur if they refused to cooperate?

Additional problems in sampling may be introduced if students are told to report to a certain location at a particular time. One could argue that students who spend their own time participating in a study are likely to be atypical with respect to interest and/or participation in sexual activity (Kirkendall, 1961). Peretti suggests that personal contact be made in the respondent's own social setting, assuming that anonymity can be preserved (Peretti, 1969). Some researchers have chosen to pay respondents and the recruiters of respondents. Bias in the selection process may be a factor in the data collected under such circumstances (Luckey and Nass, 1969; Kinsey et al., 1948; Kinsey et al., 1953). Original respondents have been permitted to recruit their friends for participation in some studies of premarital sexual intercourse. Would these recruiters (Hamilton, 1929; Kinsey et al., 1948; Kinsey et al., 1953) be likely to choose

other respondents who are similar in terms of their own behavior patterns?

A number of researchers have used mail questionnaires in gathering data on premarital sexual intercourse (Packard, 1968; Davis, 1929; Burgess and Wallin, 1953). The obvious question of collusion on filling out the questionnaire can be raised, even though complete anonymity of the respondent can be preserved using this data-gathering technique. Other researchers have distributed questionnaires to groups for completion and later gone back and retrieved them (Reiss, 1967; Exner, 1915).

The interview, eliminating anonymity in one sense of the word, does make for greater rapport with the respondent, which should result in more accurate and complete data (Hamilton, 1929; Kinsey et al., 1948; Kinsey et al., 1953).

Many early studies did not employ any type of statistical tests of significance in reporting the data. The data were usually reported in percentages and left to the reader's interpretation (Kinsey et al., 1948; Bromley and Britten, 1938; Dickinson and Beam, 1934; Davis, 1929).

Another frequent problem that has occurred in reported findings in the literature is that the number of cases reported in the final tabulations differs significantly from originally reported sample size, without explanation; yet the original sample size is what is most often referred to in reviews of the literature about premarital sexual intercourse (Packard, 1968; Locke, 1951; Ross, 1950).

The reporting of findings in the literature has often been confusing and unclear. The reader is, sometimes, unable to accurately evaluate the author's conclusions (Cuber and Harroff, 1965; Reiss, 1967). At other times, it is even necessary to combine categories and calculate descriptive statistics in order to compare the data with other studies (Terman, 1938; Kinsey et al., 1948; Peretti, 1969).

As discussed in Chapter I, there has been a general lack of concern for theory building in the research on premarital sexual intercourse. Most recent researchers, with the exception of Christensen, have avoided making statements regarding the utilitarian value of their findings (Christensen, 1969; Christensen and Gregg, 1970).

Research on premarital sexual intercourse has come a long way since the early days of Exner and Davis. If the same degree of progress in research on premarital sexual intercourse can be made during the decade of the 1970s as during the decade of the 1960s, family researchers will be able to look with admiration upon the research efforts devoted to the study of premarital sexual intercourse.

Some Testable Propositions About Premarital Sexual Intercourse Among Females

After a careful consideration of all available research findings, one must conclude that most studies of premarital sexual intercourse lack a theoretical orientation. The current state of knowledge in sociology does not permit the

application of some grand theory which would apply to the study of premarital sexual intercourse in the majority of societal situations.

The independent variables used in previous research seem to suggest three different theoretical orientations for future studies, depending upon the nature of the data. These three theoretical orientations are: the exchange orientation; the reference group orientation, which is a component part of the symbolic interaction orientation; and the structural-functional orientation. The exchange orientation involves social interaction in which one gives something of value in order to get something valued in return (Blau, 1964). The reference group orientation involves groups of which one is a member and groups of which one is not a member, becoming focal points of reference for the shaping of attitudes, values, and behavior (Merton, 1957:281). The structural-functional orientation is concerned with the consequences of any social activity which occurs for the adaptation or adjustment of a given social structure or its component parts (social actors) (Coser and Rosenberg, 1964; Merton, 1957; Radcliffe-Brown, 1952).

Through the application of the foregoing three frames of reference to the existing research literature, and to a previously unanalyzed data base of 336 never-married females, the following propositions will be subjected to test:

1. There is a direct relationship between recommended age for the marriage of females and having had premarital sexual intercourse.
2. There is an inverse relationship between age at first menstruation and having had premarital sexual intercourse.
3. There is an inverse relationship between the age at which one learns where babies come from and having had premarital sexual intercourse.
4. There is a direct relationship between a positive attitude toward oral-genital sex and having had premarital sexual intercourse.
5. There is a direct relationship between a positive attitude toward masturbation and having had premarital sexual intercourse.
6. There is a direct relationship between having encountered a positive attitude toward sexual intercourse during the menstrual period and having had premarital sexual intercourse.
7. There is an inverse relationship between ordinal position in the family and having had premarital sexual intercourse.
8. There is a direct relationship between planning to be employed after marriage and having had premarital sexual intercourse.
9. There is an inverse relationship between number of children desired and having had premarital sexual intercourse.

10. There is a direct relationship between desire to bear children later in marriage and having had premarital sexual intercourse.
11. There is a direct relationship between planning to be employed after children are born into a marriage and having had premarital sexual intercourse.
12. There is a direct relationship between viewing sexual intercourse as equally pleasurable for males and females and having had premarital sexual intercourse.
13. There is a direct relationship between having petted to orgasm with a member of the opposite sex and having had premarital sexual intercourse.
14. There is a direct relationship between expressed dissatisfaction with petting to orgasm and having had premarital sexual intercourse.
15. There is a direct relationship between self-classification as knowledgeable about reproductive physiology and having had premarital sexual intercourse.
16. There is a direct relationship between being knowledgeable about the female orgasm and having had premarital sexual intercourse.
17. There is a direct relationship between contraceptive knowledge and having had premarital sexual intercourse.
18. There is a direct relationship between commitment to a serious dating relationship and having had premarital sexual intercourse.

19. There is a direct relationship between college academic class standing and having had premarital sexual intercourse.
20. There is a direct relationship between expressed preference for a liberal Protestant demonination and having had premarital sexual intercourse.
21. There is an inverse relationship between church attendance and having had premarital sexual intercourse.
22. There is an inverse relationship between father's social class by occupation and having had premarital sexual intercourse.

If any of these propositions are found to be associated with premarital sexual intercourse, hopefully theoretical propositions can be formulated by the process of retroduction. The subsequent empirical testing of these propositions should, thus, contribute to the further development of sociological theory associated with premarital sexual intercourse.

CHAPTER III

METHODOLOGY

Background

In 1968, the Department of Obstetrics and Gynecology at Southern Medical School was conducting a research project concerned with the menstrual cycles of rhesus monkeys under the direction of Chester B. Martin, M.D., and funded by the Carnegie Foundation. Martin subsequently became interested in whether human females tend to exhibit an increased interest in sexual intercourse during the menstrual period (Hamilton, 1929; Masters and Johnson, 1966; Terman, 1938). In an attempt to clarify this question, Martin and Eugene M. Long, a senior medical student, collected data on the subject and later published preliminary findings (Martin and Long, 1969). The total sample consisted of only 25 married medical student couples, which made the data somewhat limited in adequacy and applicability. After further analysis of the preliminary findings, the scope of this human sexuality research project was expanded to include a more comprehensive view of sexual attitudes and behavior in a medical milieu. At this point in time, the author was invited to become research consultant to the Department of Obstetrics and Gynecology at Southern Medical School, for the purpose

of giving advice and counsel concerning the sociological implications of the impending sex research project.

It was decided that a new pilot survey should focus on three broad questions in the field of human sexuality. These questions were related to attitudes toward, and the extent of, participation in sexual intercourse during the menstrual period; the independent variables associated with premarital sexual intercourse in a medical milieu; and whether persons in a medical milieu accept folklore beliefs about human sexuality.

Available medical evidence appears to indicate that the peak of physiological sexual desire fluctuates for most women during the menstrual cycle due to changes in the levels of progesterone and estrogen present in their bodies. A number of leading medical authorities in recent years have indicated that, for a number of females, the achieving of orgasm during the menstrual period can aid in the alleviation of abdominal cramps often associated with painful menstruation. Despite the apparent therapeutic value of sexual activity during the menstrual period for many females, religious proscriptions against such activity persist in American society (Birenbaum, 1970; Martin and Long, 1969; Masters and Johnson, 1966; Larsen, 1965).

Many folklore beliefs also exist in our culture regarding the adverse effects of sexual activity during the menstrual period, and of human sexuality in general. Given

the availability of scientific knowledge about human sexuality in a medical milieu, will persons who are members participating in this milieu subscribe to religious and folklore beliefs about sexuality rather than to existing medical knowledge? (Brill, 1939; Burnap and Golden, 1967; Calderone, 1966; Coombs, 1968; Hastings, 1963; Lief, 1963, 1964, 1965; McCreary-Juhasz, 1967).

Many males who date nurses and/or nursing students perceive these females as being more willing to engage in sexual intercourse before marriage than females of other occupational types. Available evidence suggests that males with such perceptions tend to behave accordingly on dates with nurses or nursing students. Does the medical milieu affect the willingness of these females to engage in premarital sexual intercourse, or is this suggested difference merely medical student hearsay? (Ellis and Fuller, 1950; Skipper and Nass, 1966; Woods and Natterson, 1967).

The Instrument

Description

A thorough and detailed questionnaire was constructed which contained questions on relevant background variables, sexual histories, attitudes toward and participation in sexual intercourse during the menstrual period, attitudes toward masturbation and oral-genital sexual stimulation, knowledge about human sexuality, and knowledge about contraception. A cover letter specifying the sponsorship and the

purposes of the study, why the respondent should participate, and a guarantee of anonymity constituted the first page of the questionnaire.

The author decided to have two versions of the questionnaire, one for females and one for males, because of questions concerned with the medical menstrual history. The only difference between the two versions was that a medical menstrual history was included for female respondents. When the data gathering was approximately 9 percent completed, a new question was added at the end of the questionnaire. This new item sought a self-perceived evaluation of what happens mentally and physically when a female achieves orgasm. The purpose of this question was to determine whether females can experience orgasm without being aware that it is happening.

Considerable use was made of open-ended questions to permit freedom of expression by the individual respondent. In many other cases, it was impossible to ascertain all of the possible answer categories before collecting the data. In other cases, closed-form questions were used. A complete copy of the female version of this questionnaire can be found in Appendix I.

Pretest

The initial research instruments were drafted during the winter and spring quarters of 1969 and subsequently went through two draft revisions prior to being judged ready for pretesting. The first pretest was carried out during May of

1969 using male and female students from River City College. These respondents were enrolled in introductory sociology and sociology of the family courses. They completed the anonymous questionnaire under the supervision of a student assistant whose primary duty was to make sure that no questionnaires, either completed or uncompleted, left the premises of the sociology laboratory. Upon completion of the questionnaire, it was placed in a sealed, ballot-type box personally by the respondent. No record was kept of the respondents, and no identifying marks or labels of any type appeared on the research instrument itself, thus assuring complete anonymity for the respondents.

The results of this first pretest were carefully checked, analyzed, and evaluated. In some instances, the intent of the question had been misunderstood, and the subsequent answer obtained was not applicable. The questionnaires were then redrafted, incorporating the changes suggested by the pretest. A second pretest of the questionnaires was conducted to determine if any additional changes in wording were necessary or desirable. Again the respondents were volunteers from introductory sociology and sociology of the family courses. By this date, the academic quarter had been completed and a new one had begun, thus providing a new source of volunteers who would not be repeaters from the first pretest. An analysis of the results of the second pretest indicated that only minor changes were needed in

the final versions of the research instruments. These revisions were subsequently made, and the research instruments were ready for administration by August of 1969.

It should be noted that the principal investigator of this research project resigned from Southern Medical School to accept an offer from the Medical School of the University of California at Los Angeles, effective July 1, 1969. After this untimely development, the author was appointed principal investigator for the research project.

Administration

In order that absolute control be maintained over the integrity of the questionnaires and the anonymity of respondents, the principal investigator decided that all administrations of the questionnaires would be carried out in group-type settings. For the student respondents, the questionnaires were administered in the classroom under supervision of the principal investigator and/or a student assistant. In the case of wives of medical students (Medical Dames) and the wives of residents and interns, the questionnaires were administered at regularly scheduled meetings of the organizations under the supervision of the principal investigator. For licensed practical nurses and registered nurses, an elaborate schedule for administration during working hours was arranged with the help of the director and assistant director of nursing at each of the respective hospitals included in the samples.

Data collection stations were set up on each floor of two of the hospitals and operated simultaneously to minimize any discussion of the contents of the questionnaire. Nurses were then rotated to the data collection stations during their working hours. These data collection stations were under the immediate supervision of student assistants and the departmental secretary, with overall supervision provided by the principal investigator. In one of these hospitals, the collecting of data was carried on continuously for a period of 24 hours to insure coverage of all three shifts. In the other hospital, the data collecting was carried on for a period of 36 continuous hours to provide coverage for all three shifts, plus those persons who had had a day off on the first shift the preceding day.

The third hospital involved in the research project was a custodial psychiatric hospital. The foregoing data collection procedure was both impractical and undesirable from the standpoint of hospital security. After lengthy discussions with the director and assistant director of nursing, the principal investigator decided to set up one centralized data collection station in the main wing of the hospital. Nurses were then relieved from their duty stations, according to a predetermined plan, to come to the data collection station. This data collection station was under the immediate supervision of the departmental secretary and/or student assistants at varying times, with overall supervision

provided by the principal investigator. It was later learned that at this hospital all nurses had been required to come to the data collection station and at least look at the questionnaire. Previous public relations efforts had been made to fully inform all nursing staffs of the nature and purpose of the research project and that participation was to be strictly volunteer. The assistant nursing director had simply been over-zealous in her attempt to cooperate with the researchers. Due to the extremely small number of nurses on duty during the third shift, only nurses on the first two shifts were included in this sample.

The actual procedure for administration of the questionnaires was the same for all respondents. A brief written statement was read concerning the nature, purpose, and anonymity of the responses to the questionnaire each time a new group of potential respondents was involved. They were then asked to read the cover letter and to complete the questionnaire. If, at some point after beginning to answer, they decided not to complete the questionnaire, they were told to merely fold their questionnaire like a letter and deposit it in a box at the front of the room as everyone else would do upon completion. A sealed, ballot-type box had been provided for deposit of the completed questionnaires. As previously stated, no identifying marks or labels appeared on the questionnaires (Barnett, 1965). Using this approach, only three questionnaires out of a total of 887 questionnaires

collected could not be used. In all three cases, the respondents were married female nurses over 50 years of age.

The actual collection of data began, in August of 1969, with students enrolled in the diploma program in nursing at River City University Hospital and was concluded with female students enrolled at River City College, in May, 1970.

Analysis of Data

Code Book

A random selection of questionnaires from all subsamples was taken by the principal investigator to determine possible answer categories for the various questions. After recording the different possible answers for each question, a code book was prepared to permit the data to be transferred from the questionnaires to data-processing cards. The column numbers were assigned in such a manner as to permit additional answer categories to be added as the necessity arose. Examples were indicated in parentheses after many of the answer categories for the open-ended questions, to aid the coders in deciding on the appropriate category.

A female student assistant, who was a senior at River City College, was trained as a code clerk by the principal investigator. She had previously worked with the development of the questionnaires and subsequent pretests and was well versed in all matters pertaining to the research project. A meeting was held daily to determine what problems, if any, had arisen concerning the coding of answers that

were particularly difficult to interpret. After discussion, a consensus on the proper answer category would be reached for each problem response. This code clerk was able to code about 60 percent of the questionnaires prior to her graduation from River City College. About three months before her work termination, she began training another senior female student assistant to take over her duties as code clerk. The second code clerk was subsequently trained by the first code clerk and by the principal investigator. As part of the training procedure for both code clerks, the principal investigator would code, independently, randomly selected questionnaires that had previously been coded and compare the results. This technique proved to be an effective training method as well as an aid in maintaining quality control.

A coding log book was maintained for the purpose of recording new answer categories that were added, and the interpretations given to answers in order that they might be coded. This procedure involved recording the date, the answer category added and/or chosen for use in a particular case, and the basis and/or criteria utilized in the decision. This technique provided a valuable supplement to the coding process.

A unique aspect of the coding process was the manner in which questions related to describing the male and female orgasms were coded. A panel of five female judges, working

independently, was asked to rate the descriptions of the male and female orgasms as knowledgeable, slightly knowledgeable, or not at all knowledgeable. A composite score value was then obtained from their ratings and converted to a coding category. A copy of this composite form appears in Appendix I. The judges were selected on the basis of the following criteria: married, 30 to 39 years of age, and sexually responsive, i.e., orgasmic. All of the judges were known to the principal investigator and were not utilized as actual respondents in this survey. The sexual responsiveness of the judges was determined by using selected parts of the questionnaire and through personal interviews. To the author's knowledge, no one has ever before used this particular technique to quantify data about the male and female orgasm.

Data Processing

The data-processing cards were punched from standard 80-column code sheets especially designed for coding data of this type. These cards were subsequently verified to check for punching errors. After the necessary corrections were made, the cards were edited for coding errors using an edit program developed by the computer staff of Southern Medical School. The data-processing cards were then corrected based on the computer output from the edit program. It is herein acknowledged by the author that an edit

program will only ascertain certain kinds of coding errors. A second computer run was later made using the same edit program to check for further errors. Further corrections were made in the data cards contained in this data base, using the second edit output. It was then concluded that the data cards were relatively free of errors after the second set of corrections had been made.

A frequency distribution program was developed using COBOL, since Southern Medical School was without a programmer who could program in FORTRAN. This approach proved to be both costly and time consuming, but, nevertheless, a workable 25,000-card program was devised that would perform the necessary operations for computing frequencies and percentages for each subsample group. These frequency distributions provided the basis for subsamples to be later collapsed and for cross tabulations to be performed using the Statistical Package for the Social Sciences (SPSS) at the Northeast Regional Data Center of the State University System of Florida.

✓ Issue of Nonresponse

It is always appropriate in a survey of this nature to consider the issue of nonresponse to specific questions. As was anticipated, the highest rate of nonresponse was for questions concerning attitudes toward sexual intercourse during the menstrual period and toward oral-genital sex. Given the size of the independent samples, it is the opinion

of the author that the overall trends of the data were not adversely affected by nonresponse. Whenever a significant number of nonresponses appears, however, the issue will be explored as it related to the particular variable under consideration, in Chapter IV.

A well-established premise in sociological research is that it is exceedingly difficult to gather specific sexual data with a questionnaire. The procedure of assuring complete anonymity to the respondents greatly aided in minimizing any potential difficulty in this area (Cowden and Motse, 1970; Ehrmann, 1954; Oppenheim, 1966). The technique of asking a number of related questions to permit the filtering of answers for controversial issues was also utilized. Often, such answers could be cross tabulated to determine whether a person described the same action or behavior differently in different parts of the questionnaire (Young, 1966). The results of such comparisons were, generally, reassuring.

Statistical Treatment of the Data

Given the nonrandom manner in which the respondents were obtained in the subsample, their subsequent combination into two independent samples, and the levels of measurement utilized, the chi-square test for two independent samples was found to be the most appropriate method for determining the significance of the differences between respondents

having had premarital sexual intercourse and respondents not having had premarital sexual intercourse (Siegel, 1956).

The contingency coefficient, C , was chosen as a measure of association since it is based on the computational values of chi square. This statistic is a general purpose measure of association with wide applicability to quantitative data (Siegel, 1956).

The Sample

All respondents were associated either directly or indirectly with a major southern medical complex which is located in a Standard Metropolitan Statistical Area of 250,000 population. The respondents constituted the universe for each of the following groups: licensed practical nurses and registered nurses from two Veterans Administration Hospitals and the teaching hospital of Southern Medical School; students enrolled in diploma nursing programs at River City College and at River City University Hospital; students enrolled in five different baccalaureate degree programs in the health-related professions at Southern Medical School; the sophomore and junior classes of medical students enrolled at Southern Medical School; members of the Women's Auxiliary of the Student American Medical Association (Medical Dames); members of the interns and residents wives club; and students enrolled in the baccalaureate degree program in nursing at Southern Medical School. Additionally, female students enrolled in

nonrandomly selected upper and lower division courses in the Departments of Anthropology and Sociology; Psychology; Physics; History, Political Science, and Philosophy; English; Biology; and Education at River City College were surveyed. The professors in these courses consented to allocate an entire regular class period for completion of the questionnaire. The total number of respondents found in each subsample category can be found in Table 1.

The categories and figures in Table 1 show that there were 16 possible separate samples. Most of these samples were too small, however, for separate statistical analysis. Therefore, frequency distributions for the variables of age, size of place in which reared, class standing, dating status, position of child in the family, number of children in family, participation in premarital sexual intercourse, father's occupation, level of education, religious preference, age at first menstrual period, and quantity of menstrual flow were checked by inspection to determine whether all student samples might logically be combined into one large sample.

The most glaring finding was that considerable variation exists between the River City coeds and all of the other female student sample groups on the dependent variable of having had premarital sexual intercourse. Consequently, all of the student samples, except the River City coeds, were combined into a single sample hereafter referred to as

TABLE 1
Respondents by Sample Group and Sex

Sample Group	Sex		Totals Number
	Male Number	Female Number	
Dental hygiene	0	23	23
Medical illustration	9	1	10
Medical records	0	23	23
Radiologic technology	11	17	28
Medical technology	2	22	24
River City University Hospital student nurses	0	46	46
River City College student nurses	0	20	20
Southern Medical School Hospital nurses	4	129	133
Veterans Hospital medical nurses	2	47	49
Veterans Hospital psychiatric nurses	2	46	48
Southern Medical School student nurses	2	92	94
Southern Medical School sophomores	60	2	62
Southern Medical School juniors	40	2	42
Medical Dames	0	46	46
Residents' and interns' wives	0	25	25
River City College coeds	0	211	211
Totals	132	752	884

Allied Health Science coeds. This factor necessitates considering the data as consisting of two independent samples for the purpose of testing the empirical propositions from Chapter II. It also complicates the evaluation of the statistical significance of the various relationships under analysis.

It should be noted here that only four respondents in the student samples were 25 years of age or older. Interestingly enough, these respondents had not participated in premarital sexual intercourse at the time of the survey. The respondent who had participated in premarital sexual intercourse was in the Allied Health coed sample.

CHAPTER IV

THE ANALYSIS OF THE DATA

Description of the Respondents

Age

The Allied Health sample was slightly older, on the average, than the River City sample, as reflected in mean ages of 20.4 years for the former and 19.3 years for the latter. The data indicated that 64.3 percent of Allied Health coeds and 43.6 percent of River City coeds were between the ages of 20 and 24 (see Table 2). This age variation stems primarily from the fact that a relatively high percentage of the Allied Health coeds have traditionally transferred to Southern Medical School from other liberal arts colleges at the beginning of the junior year. Southern Medical School requires certain freshman and sophomore liberal arts courses, as prerequisites for its Allied Health Science curriculum, that are unavailable on its campus. Since the two samples are to be treated as independent of each other, this age factor will not affect the data analysis.

Race

All non-Caucasians were eliminated from the samples to avoid the possibility of having race operating as an

TABLE 2
Age Distribution of Two Sample Groups

Age	Allied Health		River City	
	No.	Percent	No.	Percent
15-19 years	67	34.2	78	55.7
20-24 years	126	64.3	61	43.6
25-29 years	1	.5	1	.7
30-34 years	1	.5	0	--
35-39 years	1	.5	0	--
Totals	196	100.0	140	100.0

intervening variable and subsequently creating possible spurious relationships among other variables (Sutker and Gilliard, 1970).

Academic Class Standing

The age differences between the two samples were also reflected in academic class standings for the respondents (see Table 3). These data indicate that 67.9 percent of Allied Health coeds were classified as upper-classmen, as contrasted with only 37.2 percent of River City coeds. It should be recalled that those River City College coeds who were enrolled in the two-year nursing program at River City College (associate degree program) were included in the Allied Health sample group. These respondents, however, comprised only 7 percent of the total Allied Health sample. Were it not for these students, the percentage differences for upper-classmen would have been even greater.

Dating Status

The most prevalent dating status category reported was "casual dating" for both the Allied Health and River City coeds (see Table 4). The term going steady appears to be declining in usage among college students who seem to prefer the term dating steadily. Approximately one-third of the respondents in both sample groups were either seriously contemplating marriage or were already engaged at the time of the survey.

TABLE 3
Class Standing of Two Sample Groups

Class Standing	Allied Health		River City	
	No.	Percent	No.	Percent
Freshman	31	15.8	46	32.8
Sophomore	32	16.3	42	30.0
Junior	65	33.2	34	24.3
Senior	68	34.7	18	12.9
Totals	196	100.0	140	100.0

TABLE 4
Dating Status of Two Sample Groups

Dating Status	Allied Health		River City	
	No.	Percent	No.	Percent
Not dating	4	2.0	10	7.1
Casual dating	85	43.4	51	36.5
Dating steadily	38	19.4	28	20.0
Going steady	9	4.6	8	5.7
Engaged-to-be-engaged	30	15.3	23	16.4
Engaged	27	13.8	20	14.3
No response	3	1.5	0	--
Totals	196	100.0	140	100.0

Religious Preference

As might be expected, the Protestant demoninations of Baptist and Methodist accounted for about two-thirds of the respondents in both the Allied Health and River City sample groups (see Table 5). The religious conservatism of both sample groups was further reflected by the fact that only a total of three respondents in the two samples combined gave "agnostic" as their religious preference.

Church Attendance

The continuing interest in religion on the part of college students was reflected in the finding that only 12.8 percent of Allied Health and 10.7 percent of River City coeds did not attend church or synagogue at least once per month. The modal frequency of church attendance for both sample groups was three to four times per month (see Table 6). The River City coeds were shown to be more religiously active than the Allied Health coeds. This finding can be accounted for, in great part, by the high percentage of River City coeds who were "local girls," whereas the same was not true for Allied Health coeds. It is thus reasonable to assume that River City coeds received more overt familial pressure to attend worship services at their church or synagogue when contrasted with Allied Health coeds.

TABLE 5
Religious Preference of Two Sample Groups

Religious Preference	Allied Health		River City	
	No.	Percent	No.	Percent
Baptist	79	40.3	57	40.7
Methodist	52	26.5	33	23.6
Episcopal	14	7.2	12	8.6
Presbyterian	14	7.2	11	7.9
Catholic	11	5.6	12	8.6
None	9	4.6	3	2.1
Lutheran	6	3.1	4	2.9
Jewish	4	2.0	0	--
Agnostic	2	1.0	1	.7
Nondenominational Christian	2	1.0	1	.7
Christian Missionary	1	.5	0	--
Church of God	1	--	0	--
Bahai Faith	0	--	2	1.4
Church of Christ	0	--	1	.7
Greek Orthodox	0	--	1	.7
Moslem	0	--	1	.7
Unitarian	0	--	1	.7
No response	1	.5	0	--
Totals	196	100.0	140	100.0

TABLE 6
Church Attendance of Two Sample Groups

Church Attendance by Month	Allied Health		River City	
	No.	Percent	No.	Percent
None	25	12.8	15	10.7
1-2 times	61	31.1	35	25.0
3-4 times	74	37.8	42	30.0
5-6 times	20	10.2	15	10.7
7-8 times	5	2.5	8	5.7
9-10 times	0	--	8	5.7
11-12 times	2	1.0	13	9.3
No response	0	--	1	.7
Not applicable	9	4.6	3	2.2
Totals	196	100.0	140	100.0

Father's Occupation

Support was found for two assumptions often made with regard to the social class backgrounds of commuter-college students and those of students choosing Allied Health Science as a career. It has generally been assumed in the past that most college students from working-class families attend commuter colleges. These data supported that contention (see Table 7). The most frequently cited occupation for fathers, among River City coeds, was "skilled."

Many persons assume that females from working-class families typically view the fields of medicine and the health-related professions, with their uniforms of white, as an opportunity for upward social mobility. This point of view was reflected in the data, as the most frequently cited occupation for fathers of Allied Health coeds was "skilled."

The apparent similarity of the two samples was reflected in the findings that 21.9 percent of Allied Health coeds' fathers and 22.2 percent of River City coeds' fathers were categorized as "professionals." Further support was provided by the fact that 17.9 percent of the fathers of both Allied Health and River City coeds were "business executives."

Size of Place Where Reared

A considerable disparity existed between the Allied Health and River City coeds with regard to the size of places

TABLE 7

Father's Occupation of Two Sample Groups

Father's Occupation	Allied Health		River City	
	No.	Percent	No.	Percent
Skilled worker	49	25.0	38	27.2
Professional worker	43	21.9	31	22.2
Business executive	35	17.9	25	17.9
White-collar worker	33	16.8	29	20.7
Small businessman	19	9.7	10	7.1
Semiskilled worker	7	3.6	2	1.4
Farmer	6	3.1	2	1.4
Unskilled worker	2	1.0	1	.7
History unavailable	0	--	2	1.4
No response	2	1.0	0	--
Totals	196	100.0	140	100.0

in which they grew up. A total of 48.0 percent of Allied Health coeds grew up in places of less than 25,000 population as contrasted with only 30.7 percent of River City coeds (see Table 8). These data further indicated that 54.3 percent of River City and 39.8 percent of Allied Health coeds grew up in places having 50,000 or more population. The Allied Health coeds may be expected to be more conservative if the rural-urban continuum of conservatism is still operative.

Number of Children in Family of Orientation

The term family of orientation was defined for the purposes of this investigation as ego, her sisters and brothers, and her parents (Leslie, 1973:14). Using this concept, little, if any, variation existed between the two sample groups with regard to the number of children in the family of orientation (see Table 9). The most frequently cited family size was three to four children for both Allied Health and River City coeds. About one-sixth of the respondents in both sample groups were from families with five or more children.

Ordinal Position in Family

As was evidenced by the data, 46.4 percent of Allied Health and 40.7 percent of River City coeds represented the first child born into their families of orientation. The data further indicated that 29.6 percent of Allied Health and 37.1 percent of River City coeds were the second children born to their parents (see Table 10).

TABLE 8

Size of Place Where Reared of Two Sample Groups

Size of Place	Allied Health		River City	
	No.	Percent	No.	Percent
Under 2,500	23	11.7	10	7.1
2,500-24,999	71	36.3	33	23.6
25,000-49,999	20	10.2	17	12.1
50,000-99,999	20	10.2	41	29.3
100,000 or more	58	29.6	35	25.0
No response	2	1.0	4	2.9
Not applicable	2	1.0	0	--
Totals	196	100.0	140	100.0

TABLE 9
Number of Children in Families of Orientation
of Two Sample Groups

Number of Children	Allied Health		River City	
	No.	Percent	No.	Percent
1-2 children	70	35.7	51	36.4
3-4 children	85	43.4	67	47.9
5-6 children	28	14.3	19	13.6
7-8 children	5	2.5	2	1.4
9-10 children	1	.5	0	--
No response	7	3.6	1	.7
Totals	196	100.0	140	100.0

TABLE 10
Ordinal Position in Families of Two Sample Groups

Ordinal Position	Allied Health		River City	
	No.	Percent	No.	Percent
First child	91	46.4	57	40.7
Second child	58	29.6	52	37.1
Third child	24	12.3	23	16.5
Fourth child	8	4.1	5	3.6
Fifth child	4	2.0	1	.7
Sixth child	1	.5	0	--
Seventh child	1	.5	1	.7
Eighth child	1	.5	0	--
No response	8	4.1	1	.7
Totals	196	100.0	140	100.0

Anticipation of Marriage in the Future

Evidently, neither of the sample groups had, at the time of the data collection, joined the supposedly increasing numbers of college coeds who have renounced marriage as a way of life. It is noteworthy that 97.9 percent of Allied Health and 98.6 percent of River City coeds anticipated marriage at sometime in the future (see Table 11). Supplementary data, not reported in Table 11, indicated that 32.1 percent of Allied Health and 26.4 percent of River City coeds planned to continue working after they had given birth to children. These data were somewhat behind the national trend in this direction.

The Menstrual Histories of the Respondents

Given the uniqueness of some of the data collected from the female respondents in the overall pilot study entitled "Sex Attitudes and Behavior in a Medical Milieu," a brief presentation of data associated with the respondents' menstrual cycles is deemed appropriate. These data should help to eliminate some of the myths and old wives' tales often associated with menstrual cycles.

Age at First Menstrual Period

Researchers have generated considerable controversy over whether an evolutionary trend toward an earlier age for menarche (i.e., first menstrual period) has come to exist for American females.

TABLE 11

Anticipation of Marriage in the Future of Two Sample Groups

Anticipation of Marriage	Allied Health		River City	
	No.	Percent	No.	Percent
Yes	192	97.9	138	98.6
No	4	2.1	1	.7
No response	0	--	1	.7
Totals	196	100.0	140	100.0

In an early comparative study of southern mothers and daughters, researchers found that the mean age for menarche was 14.0 years for mothers and 13.7 years for daughters (Gould and Gould, 1932:1349-1351). A later publication by Kroth argued, while reviewing past research reports, that the menarche usually began between 12.6 to 13.7 years for American females (Kroth, 1968:801). Auger, in a more recent study of female graduate students found the menarche to be 12.0 years (Auger, 1967:149).

The mean age for menarche was 12.3 years for Allied Health and River City coeds (see Table 12). These findings lend further credence to the argument that American females begin menstruation earlier than their mothers and grandmothers.

Regularity of Menstrual Period

The findings, when recalculated to eliminate nonresponses, show 78.5 percent of Allied Health and 89.5 percent of River City coeds were experiencing regular menstrual periods (see Table 13). The possibility of contamination of these data could provide a possible explanation for the variation between River City and Allied Health coeds' data. It was ascertained that 18.4 percent of Allied Health and 10.1 percent of River City coeds were using oral contraceptives for contraceptive and/or medicinal purposes at the time of completing the questionnaire. Thus, this usage pattern

TABLE 12

Age at First Menstrual Period of Two Sample Groups

Age at First Menstrual Period	Allied Health		River City	
	No.	Percent	No.	Percent
8-9 years	1	.5	1	.7
10-11 years	44	22.5	34	24.3
12-13 years	129	65.8	83	59.3
14-15 years	17	8.7	20	14.3
16-17 years	5	2.5	1	.7
No response	0	--	1	.7
Totals	196	100.0	140	100.0

TABLE 13
 Regularity of Menstrual Period of Two Sample Groups

Regularity of Menstrual Period	Allied Health		River City	
	No.	Percent	No.	Percent
Regular	132	67.3	94	67.2
Irregular	35	17.9	15	10.7
Amenorrhea	1	.5	0	--
No response	28	14.3	31	22.1
Totals	196	100.0	140	100.0

could account for a portion of the variation between the two sets of data. This contention would seemingly be supported by Auger's data, in which 42.5 percent of respondents reported they were using oral contraceptives (Auger, 1967:149).

For some unexplained reason, 14.3 percent of Allied Health coeds and 22.1 percent of River City coeds chose to leave this particular question blank. Yet prior and subsequent questions about the menstrual periods achieved a much lower rate of nonresponse. For example, a later question concerned with quantity of menstrual flow had a nonresponse rate of 0.0 percent for Allied Health and 1.4 percent for River City coeds. Lack of recall would not seem to present a plausible explanation, so the question of nonresponse remains unanswered.

The question of menstrual regularity has been a continual concern for many females, especially if they are sexually active. A late and/or missed menstrual period is usually taken as the first presumptive sign of pregnancy. Data obtained from airline stewardesses concerning their menstrual periods prior to involvement with air flights indicated that 53.2 percent had been experiencing regular menstrual periods. These data were secured prior to the widespread availability and usage of the oral contraceptive. More recent data on menstrual periods may have the usage of oral contraceptives appearing as an intervening variable (Cameron, 1969:1021-1022). Auger had stated that 87.5 percent of her respondents had regular menstrual periods (Auger, 1967:149).

Length of Menstrual Cycle

One of the most potentially disastrous myths associated with menstruation is the mistaken impression that a regular menstrual cycle consists of only 28 days. Many marriage manuals help to perpetuate this myth in explanations of how the rhythm method of contraception functions. Typically, a 28-day menstrual cycle has been used to illustrate that ovulation occurs 14 days prior to the beginning of the next menstrual period (Hastings, 1972; Preston, Bateman, Short and Wilkinson, 1973; Moos, Kopell, Melges, Yalon, Lunde, Clayton, and Hamburg, 1969). Many naive readers thus conclude that most menstrual cycles are of a 28-day length and, secondly, that ovulation can be calculated by taking the length of the menstrual cycle and dividing by two. Numerous pregnancies will likely occur if this incorrect method is relied upon to determine when ovulation may have occurred.

Israel stated that the normal menstrual cycle for females was 21 to 35 days in length (Israel, 1967:776-777). Preston et al. found, in a recent study of 29 airline stewardesses, the mean length of the menstrual cycle to be 29.0 days if two respondents with highly irregular menstrual cycles were omitted from the computation (Preston et al., 1973:440-442). All respondents started keeping log books of their menstrual cycles upon beginning initial flight duties with the airline company. Their menstrual cycles had a mean

of 28.1 days. A review of Auger's data showed the mean length of the menstrual cycle to be 28.6 days (Auger, 1967: 149).

A slight variation in length of the menstrual cycle was found to exist between Allied Health and River City coeds (see Table 14). The mean length of the menstrual cycle for Allied Health coeds was 29.0 days and 27.9 days for River City coeds. These differences were not, however, statistically significant. It is interesting to note that the reported data from Auger's study fell midway between that of the Allied Health and the River City coeds.

Intensity of Menstrual Flow

An analysis of current data finds that 20.9 percent of Allied Health and 19.6 percent of River City coeds reported having heavy menstrual flows (see Table 15). The percentage for River City coeds was recalculated to remove two nonresponses. Similar data cited from the Cameron study indicated a much higher percentage of females, 30.3 percent, with heavy menstrual flows (Cameron, 1969:1021).

Could this variation be attributed to the fact that none of the female respondents in the Cameron study were reported as using oral contraceptives? (Auger, 1967).

Length of Menstrual Flow

Both Allied Health and River City coeds had menstrual flows for a greater number of days when compared with data from other studies (see Table 16). The reported mean

TABLE 14
Length of Menstrual Cycle of Two Sample Groups

Length of Menstrual Cycle	Allied Health		River City	
	No.	Percent	No.	Percent
22 days or less	6	3.1	6	4.3
23-25 days	12	6.1	13	9.3
26-28 days	66	33.7	49	35.0
29-31 days	61	31.1	34	24.3
32-34 days	18	9.2	8	5.7
35-37 days	10	5.1	4	2.9
38-40 days	3	1.5	0	--
41 days or more	4	2.0	5	3.5
No response	14	7.2	16	11.4
Not applicable	2	1.0	5	3.6
Totals	196	100.0	140	100.0

TABLE 15
Quantity of Menstrual Flow of Two Sample Groups

Quantity of Menstrual Flow	Allied Health		River City	
	No.	Percent	No.	Percent
Light	22	11.2	10	7.2
Medium	133	67.9	101	72.1
Heavy	41	20.9	27	19.3
No response	0	--	2	1.4
Totals	196	100.0	140	100.0

TABLE 16
Length of Menstrual Flow of Two Sample Groups

Length of Menstrual Flow	Allied Health		River City	
	No.	Percent	No.	Percent
1-2 days	5	2.6	2	1.5
3-4 days	50	25.5	34	24.3
5-6 days	106	54.1	78	55.7
7-8 days	31	15.8	21	15.0
9 days and over	1	.5	2	1.4
No response	2	1.0	3	2.1
Not applicable	1	.5	0	--
Totals	196	100.0	140	100.0

length of the menstrual flow was 5.2 days for Allied Health and 5.3 days for River City coeds. Cameron reported a mean length of 4.6 days, while Auger reported a mean length of 4.8 days for the menstrual flow (Cameron, 1969:1022; Auger, 1967:149). The central issue would again seem to be complicated by the lack of usage of oral contraceptives by Cameron's respondents.

The Sexual Histories of the Respondents

Ever Had Sexual Intercourse

Only 34.7 percent of Allied Health and 19.3 percent of River city coeds had experienced premarital sexual intercourse (see Table 17). These data would, at first, appear to be highly inconsistent with other reported research data about premarital sexual intercourse among college students. For example, Bergen found that 49 percent of her total female sample group had participated in premarital sexual intercourse. However, only 38.4 percent of the females in the Deep South were reported as having participated in premarital sexual intercourse (Bergen, 1972:76). Using data collected at the University of Maryland in nine undergraduate sociology classes, Thomas found that 49.9 percent of female respondents had participated in premarital sexual intercourse (Thomas, 1972:48).

In a recent study at the University of Wisconsin at Waukesha, only 28.4 percent of female respondents had engaged in premarital sexual intercourse (Burgess, 1973:127-128). This

TABLE 17
Experience with Sexual Intercourse
of Two Sample Groups

Experience with Sexual Intercourse	Allied Health		River City	
	No.	Percent	No.	Percent
Yes	68	34.7	27	19.3
No	128	65.3	113	80.7
Totals	196	100.0	140	100.0

finding would support the contention that at a more "local" rather than "cosmopolitan" campus a much lower rate of female participation in premarital sexual intercourse would be found to exist. Finally, at a major state university located in the same state as River City College and Southern Medical School, Robinson et al. ascertained that 37.3 percent of female respondents had participated in premarital sexual intercourse (Robinson et al., 1972:190).

Age at First Sexual Intercourse

The mean age for first participation in premarital sexual intercourse was 18.6 years for Allied Health and 17.9 years for River City coeds (see Table 18). It seems somewhat paradoxical that River City coeds would have had premarital sexual intercourse at earlier ages and yet still exhibit an overall lower rate of lifetime participation in premarital sexual intercourse than Allied Health coeds. This variation in the mean ages for first sexual intercourse between Allied Health and River City coeds would appear to be attributable to the smaller number of River City coeds who have had premarital sexual intercourse.

The data for Allied Health coeds coincided with the data of Bergen, which indicated the mean age for first participation in premarital sexual intercourse to be 18.6 years for female respondents (Bergen, 1972:76). Earlier unpublished findings for females at Oberlin College, however, indicated a mean age of 19.9 years for first participation

TABLE 18
Age at First Act of Sexual Intercourse
of Two Sample Groups

Age at First Sexual Intercourse	Allied Health		River City	
	No.	Percent	No.	Percent
10-12 years	1	1.5	0	--
13-15 years	1	1.5	3	11.1
16-18 years	26	38.2	12	44.5
19-21 years	38	55.8	11	40.7
22-24 years	1	1.5	0	--
No response	1	1.5	1	3.7
Totals ^a	68	100.0	27	100.0

^aSee Table 17.

in premarital sexual intercourse (Wachtel, Coopriders, and Taylor, 1968:10).

Quality of First Sexual Intercourse

The respondents were asked to evaluate their initial act of sexual intercourse on a continuum ranging from very pleasurable to very unpleasurable. The possible answer choices were: very pleasurable, pleasurable, unpleasurable, and very unpleasurable. Thus, a subjective evaluation was required on the part of the respondent. Approximately one-half of Allied Health and River City coeds cited their initial act of sexual intercourse as pleasurable (see Table 19). A higher proportion of the respondents in both sample groups rated their first act of sexual intercourse as very unpleasurable rather than very pleasurable.

Frequency of Sexual intercourse with First Sex Partner

Of the two sample groups, 17.6 percent of Allied Health and 18.6 percent of River City coeds replied that they did not ever have premarital sexual intercourse with their initial sex partner again (see Table 20). These findings contrasted sharply with those of Bergen, who reported that only 7.2 percent of female respondents stated that they did not ever engage in premarital sexual intercourse with the initial sex partner again (Bergen, 1972:78). It is of further importance to note that only 41.2 percent of Allied Health and 40.8 percent of River City coeds indicated having had sexual intercourse with their first sex partner 12 or more times.

TABLE 19
Quality of First Act of Sexual Intercourse
of Two Sample Groups

Quality of First Sexual Intercourse	Allied Health		River City	
	No.	Percent	No.	Percent
Very pleasurable	9	13.2	2	7.4
Pleasurable	24	35.3	12	44.5
Unpleasurable	19	27.9	9	33.3
Very unpleasurable	12	17.7	4	14.8
No response	4	5.9	0	--
Totals ^a	68	100.0	27	100.0

^aSee Table 17.

TABLE 20

Frequency of Sexual Intercourse with First Sex Partner
of Two Sample Groups

Frequency of Sexual Intercourse with First Partner	Allied Health		River City	
	No.	Percent	No.	Percent
Only once	12	17.6	4	18.5
2-3 times	13	19.1	2	7.4
4-6 times	7	10.3	3	11.1
7-11 times	7	10.3	4	14.8
12 or more times	28	41.2	11	40.8
No response	1	1.5	2	7.4
Totals ^a	68	100.0	27	100.0

^aSee Table 17.

Number of Different Sex Partners

One person was reported as the only sex partner by 64.7 percent of Allied Health and 48.2 percent of River City coeds (see Table 21). Those data support that of Bergen, in which three-fourths of the respondents reported having only one person as the sex partner (Bergen, 1972:78). By combining the answer categories for four, five, and six or more persons as sex partners, it is possible to account for only 10.3 percent of Allied Health and 14.8 percent of River City coeds' responses. These findings seem to support the contention that a large number of females engage in premarital sexual intercourse primarily in the context of a meaningful relationship (Ehrmann, 1959).

Ever Experienced Orgasm

It is herein assumed that a female can identify the physiological sensations accompanying orgasm and can thus determine if an orgasm has actually been experienced (Clark, 1960; Masters and Johnson, 1966). Given this assumption, 41.1 percent of Allied Health and 43.3 percent of River City coeds reported having experienced an orgasm. New percentages were recalculated to eliminate the effect of non-responses for this question (see Table 22). With a total nonresponse rate of only 4.5 percent, the overall direction of this query has not been adversely affected.

TABLE 21
Number of Different Sex Partners of Two Sample Groups

Number of Different Sex Partners	Allied Health		River City	
	No.	Percent	No.	Percent
One person	44	64.7	13	48.2
Two persons	7	10.3	6	22.2
Three persons	8	11.8	3	11.1
Four persons	1	1.5	2	7.4
Five persons	3	4.4	1	3.7
Six or more persons	3	4.4	1	3.7
No response	2	2.9	1	3.7
Totals ^a	68	100.0	27	100.0

^aSee Table 17.

TABLE 22
Experience with Orgasm of Two Sample Groups

Experience with Orgasm	Allied Health		River City	
	No.	Percent	No.	Percent
Yes	77	39.3	58	41.4
No	110	56.1	76	54.3
No response	9	4.6	6	4.3
Totals	196	100.0	140	100.0

Ever Petted to Orgasm with Member of Opposite Sex

With the intent of gathering empirical data relating to the concept of the technical virgin, a question was asked about petting to orgasm with members of the opposite sex (Ehrmann, 1959). For the Allied Health coeds, 34.4 percent reported having petted to orgasm, as did 24.2 percent of the River City coeds (see Table 23). It was again necessary to recalculate the percentages to eliminate the effect of nonresponse. The nonresponse rate was 9.0 percent if a mean for both samples is considered. Those data contrasted sharply with that of Shope, who found that 48.7 percent of female respondents had petted to orgasm with a member of the opposite sex. The question of the technical virgin will be explored more fully later in this chapter (Shope, 1966:55).

Experienced Orgasm with Sexual Intercourse

After eliminating the mean nonresponse rate of 4.7 percent from the presentation of these findings, 60.0 percent of experienced Allied Health and 65.4 percent of experienced River City coeds reported having experienced an orgasm while having sexual intercourse (see Table 24). It should be recognized that some question exists regarding self-reporting of orgasms given the admission on the part of some females that orgasms are sometimes faked to appease males overly concerned with their virility. However, this

TABLE 23

Experience with Petting to Orgasm with Members of
Opposite Sex of Two Sample Groups

Experience with Petting to Orgasm	Allied Health		River City	
	No.	Percent	No.	Percent
Yes	63	32.2	30	21.4
No	120	61.2	94	67.2
No response	13	6.6	16	11.4
Totals	196	100.0	140	100.0

TABLE 24

Experience with Orgasm While Having Sexual Intercourse
of Two Sample Groups

Experience with Orgasm with Sexual Intercourse	Allied Health		River City	
	No.	Percent	No.	Percent
Yes	39	57.4	17	63.0
No	25	36.8	9	33.3
No response	4	5.8	1	3.7
Totals ^a	68	100.0	27	100.0

^aSee Table 17.

question was worded in such a manner as to, hopefully, avoid the false reporting of orgasms by females (see Appendix I). These findings were somewhat unanticipated because one would have expected Allied Health coeds to be more physiologically aware of their own bodies than River City coeds. It has been demonstrated, elsewhere, that a conscious awareness of the various physiological processes and sensations is a variable in the ability to achieve orgasm while having sexual intercourse among females. In the data previously reported by Shope, only 50.0 percent of the females had experienced orgasm while having sexual intercourse. Thus both Allied Health and River City coeds were somewhat more sexually responsive than Shope's respondents (Shope, 1966:19-20).

Evaluation of Testable Propositions

Level of Significance

In keeping with common usage within the field of sociology, a significance level of $p = .05$ for chi square (χ^2) was chosen. This p value will be used as a basis for acceptance or rejection of the null proposition (H_0) that no statistically significant relationship exists between the dependent variable and a given independent variable (Blalock, 1972; Siegel, 1956). By using a p value of .05, the likelihood of making a type-I error is one in 20 chances. The chi-square values, p values, and degrees of freedom will appear for each table utilized in the evaluation of testable propositions.

The contingency coefficient (C) was computed as a measure of the degree of association between the dependent variable and a given independent variable. Most standard statistics textbooks agree that it is unnecessary to compute a contingency coefficient if the chi-square value does not permit rejection of the null proposition. However, in the interest of maintaining continuity in the data presentation, contingency coefficients were computed for all propositions, irrespective of whether the null proposition was accepted or rejected. These coefficients will appear for each table. It should be borne in mind that the maximum value of the contingency coefficient fluctuates as the degrees of freedom change for the contingency table. For example, a 2 x 2 contingency table would have a maximum upper limit value of only .707 for the contingency coefficient (C) rather than a value of 1.000.

Testable Empirical Propositions

1. There is a direct relationship between recommended age for the marriage of females and having had premarital sexual intercourse.

This independent variable failed to distinguish, in a statistically significant manner, between those who had and had not participated in premarital sexual intercourse for either sample group. Disregarding the question of experience with premarital intercourse, 78.5 percent of Allied Health and 67.7 percent of River City coeds expressed the opinion

that the most appropriate age for marriage was 20 to 24 years of age. Furthermore, only 2.1 percent of Allied Health and .7 percent of River City coeds gave 25 to 29 years as the recommended age for marriage. The overwhelming preference for 20 to 24 years as the most appropriate age at marriage for females made it impossible to find any significant differences between the sexually experienced and inexperienced coeds in either sample group (see Table 25). The age category of 20 to 24 years most likely represents the period in life when college graduation has taken place and the search for the future begun.

2. There is an inverse relationship between age at first menstruation and having had premarital sexual intercourse.

Rather than finding an inverse relationship between age at first menstruation and having had premarital sexual intercourse, a statistically significant direct relationship was found to exist for River City but not for Allied Health coeds. Among River City coeds, 74.1 percent of the sexually experienced and only 56.3 percent of the sexually inexperienced reported their age at menarche as being 12 to 13 years of age. Allied Health coeds differed in that 70.6 percent of the sexually experienced stated their age at menarche as being 12 to 13 years of age as contrasted with 63.3 percent of the sexually inexperienced (see Table 26).

TABLE 25
Experience with Premarital Sexual Intercourse, by Sample, and Recommended Age for Marriage of Females

Age for Marriage	Allied Health ^a				River City ^b							
	Experienced		Inexperienced		Experienced		Inexperienced					
	No.	Percent	No.	Percent	No.	Percent	No.	Percent				
15-19 years	10	15.9	27	21.1	37	19.4	9	34.6	34	30.9	43	31.6
20-24 years	52	82.5	98	76.6	150	78.5	17	65.4	75	68.2	92	67.7
25-29 years	1	1.6	3	2.3	4	2.1	0	--	1	.9	1	.7
Totals	63	33.0	128	67.0	191 ^c	100.0	26	19.1	110	81.9	136 ^d	100.0

^a $\chi^2 = .90$; $p = .64$; d.f. = 2; $C = .069$.

^b $\chi^2 = .35$; $p = .84$; d.f. = 2; $C = .051$.

^c Does not include "no response" for 5 respondents.

^d Does not include "no response" for 4 respondents.

TABLE 26

Experience with Premarital Sexual Intercourse, by Sample, and Age at First Menstruation

Age at First Menstruation	Allied Health ^a				River City ^b							
	Experienced		Inexperienced		Experienced		Inexperienced					
	No.	Percent	No.	Percent	No.	Percent	No.	Percent				
10-11 years	14	20.6	31	24.2	45	22.9	4	14.8	31	27.6	35	25.2
12-13 years	48	70.6	81	63.3	129	65.8	20	74.1	63	56.3	83	59.7
14-15 years	6	8.8	11	8.6	17	8.7	2	7.4	18	16.1	20	14.4
16-17 years	6	--	5	3.9	5	2.6	1	3.7	0	--	1	--
Totals	68	34.7	128	65.3	196	100.0	27	19.4	112	81.6	139 ^c	100.0

^a $\chi^2 = 3.23$; $p = .36$; d.f. = 3; $C = .127$.^b $\chi^2 = 7.98$; $p = .05$; d.f. = 3; $C = .233$.^cDoes not include "no response" for 1 respondent.

Females who began their menstrual periods at later ages were thus more likely to participate in premarital sexual intercourse than those females who began their menstrual periods at an early age. These findings would seem to negate, at least to a degree, the contention that early curiosity about one's body is likely to result in participation in premarital sexual intercourse.

3. There is an inverse relationship between the age at which one learns where babies come from and having had premarital sexual intercourse.

Instead of finding an inverse relationship existing between the age at which one learns where babies come from and having participated in premarital sexual intercourse, a statistically significant direct relationship was found to exist for the River City coeds only (see Table 27). For River City coeds, 16.7 percent of the sexually experienced and 25.6 percent of the sexually inexperienced reported their age at learning where babies come from as being 7 to 8 years. Equal numbers of the sexually inexperienced River City coeds gave 7 to 8 years, 9 to 10 years, and 11 to 12 years as the time frame during which they had learned where babies come from. Small insignificant differences were found to exist between the sexually experienced and inexperienced Allied Health coeds for the various age groupings. The most frequently cited age for having learned where babies come from was 9 to 10 years for both the sexually experienced

TABLE 27

Experience with Premarital Sexual Intercourse, by Sample, and Age at Learning Where Babies Come From

Age at Learning Where Babies Come from	Allied Health ^a				River City ^b							
	Experienced		Inexperienced		Experienced		Inexperienced					
	No.	Percent	No.	Percent	No.	Percent	No.	Percent				
5-6 years	11	17.5	18	15.7	29	16.3	1	4.2	14	14.7	15	12.6
7-8 years	12	19.0	19	16.5	31	17.4	4	16.7	24	25.3	28	23.5
9-10 years	25	40.0	44	38.2	69	38.8	8	33.3	24	25.3	32	26.9
11-12 years	9	14.0	24	20.9	33	18.5	8	33.3	24	25.3	32	26.9
13-14 years	6	9.5	10	8.7	16	9.0	3	12.5	9	9.4	12	10.1
Totals	63	35.4	115	64.6	178 ^c	100.0	24	20.2	95	79.8	119 ^d	100.0

^a $\chi^2 = 1.26$; $p = .86$; d.f. = 4; $C = .084$.^b $\chi^2 = 28.43$; $p = .001$; d.f. = 4; $C = .439$.^c Does not include "no response" for 18 respondents.^d Does not include "no response" for 21 respondents.

and inexperienced Allied Health coeds. Those River City coeds who learned where babies come from at an early age were thus less likely to have engaged in premarital sexual intercourse.

These findings should help put to rest the argument that sex education is supposedly harmful to young children because it encourages sexual experimentation. It certainly seems plausible that the opposite may, in fact, actually be true.

The nonresponse rate of 9.2 percent for Allied Health and 15.0 percent for River City coeds could have been attributable to the inability to recall the specific time period necessary to answer the question. There is no evidence that the nonresponses are other than randomly distributed among the sample groups. If this assumption is correct, the stated relationship would not be adversely affected.

4. There is a direct relationship between a positive attitude toward oral-genital sex and having had premarital sexual intercourse.

While this proposition was not statistically significant for either Allied Health or River City coeds, it was in the stated direction for both samples (see Table 28). Of River City coeds who had participated in premarital sexual intercourse, 45 percent reported positive attitudes toward oral-genital sex as contrasted with 23.7 percent of those who had not participated in premarital sexual

TABLE 28

Experience with Premarital Sexual Intercourse, by Sample, and Attitude Toward Oral-Genital Sex

Attitude Toward Oral-Genital Sex	Allied Health ^a						River City ^b					
	Experienced			Inexperienced			Experienced			Inexperienced		
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Negative	10	17.6	24	34.2	34	26.8	5	25.0	11	28.9	16	27.6
Neutral	32	56.1	34	48.6	66	52.0	6	30.0	18	47.4	24	41.4
Positive	15	26.3	12	17.2	27	21.2	9	45.0	9	23.7	18	31.0
Totals	57	44.9	70	55.1	127 ^c	100.0	20	34.5	38	65.5	58 ^d	100.0

^a $\chi^2 = 4.88$; $p = .09$; d.F. = 2; $C = .192$.^b $\chi^2 = 2.95$; $p = .25$; d.F. = 2; $C = .220$.^c Does not include "no response" for 69 respondents.^d Does not include "no response" for 82 respondents.

intercourse. As for Allied Health coeds, 26.3 percent of the sexually experienced and 17.2 percent of the sexually inexperienced indicated positive attitudes toward oral-genital sex. These findings are somewhat paradoxical in view of the medically oriented education the Allied Health coeds were supposedly receiving. Those females who had not had premarital sexual intercourse tended to report negative attitudes toward oral-genital sex more often in both sample groups. Additional data about oral-genital sex can be found in Appendix II (see Table 52).

The issue of nonresponse for the questions relating to oral-genital sex warrants further attention at this point. These questions received a higher rate of nonresponse than did any other questions in the entire research instrument. This adverse reaction can best be attributed to the extremely sensitive nature of the topic of oral-genital sex. It should be remembered that these data were collected in the heart of the Bible Belt and that a majority of the respondents reported religious preferences as either Baptist or Methodist. Many individuals view oral-genital sex as a form of sexual perversion which should be punished by the courts. It was regrettable that 35.2 percent of Allied Health and 58.6 percent of River City coeds failed to indicate their attitudes toward oral-genital sex. Nevertheless, one can reasonably assume that the nonrespondents are most likely predisposed in the direction of negative attitudes.

5. There is a direct relationship between a positive attitude toward masturbation and having had premarital sexual intercourse.

Possessing a positive attitude toward masturbation and having had premarital sexual intercourse proved to be statistically significant for the Allied Health coeds only (see Table 29). Among Allied Health coeds who were sexually experienced, 25.0 percent exhibited a positive attitude toward masturbation, as contrasted with only 8.8 percent of the sexually inexperienced. Despite the medical orientation of the Allied Health coeds, 11.3 percent still indicated that masturbation could be harmful to the individual from medical and/or mental health perspectives. The percentage differences between sexually experienced and inexperienced River City coeds were slight. Over two-thirds of all respondents in both sample groups indicated an attitude of neutrality toward masturbation. Supplemental data on masturbation can be found in Appendix II (see Table 53).

Unfortunately, 30.6 percent of Allied Health and 43.5 percent of River City coeds failed to answer this query. It is quite conceivable that the level of significance was adversely affected by this problem. As in the earlier discussion regarding oral-genital sex, logic seems to imply that persons failing to answer a sensitive question about masturbation most likely fall into the negative attitude

TABLE 29

Experience with Premarital Sexual Intercourse, by Sample, and Attitude Toward Masturbation

Attitude Toward Masturbation	Allied Health ^a				River City ^b							
	Experience		Inexperienced		Row Totals		Experienced		Inexperienced		Row Totals	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Negative--religious	1	1.8	10	12.5	11	8.1	1	5.0	2	3.4	3	3.8
Negative--mental health	1	1.8	7	8.8	8	5.9	1	5.0	6	10.2	7	8.9
Negative--medical	0	--	2	2.5	2	1.5	1	5.0	1	1.7	2	2.5
Neutral	40	71.4	54	67.4	94	69.1	15	75.0	41	69.4	56	70.8
Positive--mental health	6	10.7	3	3.8	9	6.6	1	5.0	3	5.1	4	5.1
Positive--physical satisfaction	8	14.3	4	5.0	12	8.8	1	5.0	6	10.2	7	8.9
Totals	56	41.2	80	58.7	136 ^c	100.0	20	25.3	59	74.7	79 ^d	100.0

^a $\chi^2 = 14.24$; $p = .02$; d.f. = 5; $C = .308$.^b $\chi^2 = 1.69$; $p = .89$; d.f. = 5; $C = .145$.^cDoes not include "no response" for 60 respondents.^dDoes not include "no response" for 61 respondents

category. The Biblical story of Onan has frequently been used as a reference to denounce masturbation as sinful. Onanism is thus, from the perspective of many, considered to be synonymous with masturbation. Leslie, however, has argued that this interpretation of onanism represents a misunderstanding of exactly what the so-called crime of Onan was all about (Leslie, 1973:159). His view is that onanism refers to coitus interruptus as a method of contraception.

6. There is a direct relationship between a positive attitude toward sexual intercourse during the menstrual period and having had premarital sexual intercourse.

The independent variable of positive attitude toward sexual intercourse during the menstrual period failed to distinguish significantly between the sexually experienced or inexperienced for either sample group. The River City coeds did, however, indicate a trend in the stated direction of the proposition (see Table 30). Two-thirds of all respondents in both sample groups expressed a positive attitude toward having sexual intercourse during the menstrual period.

These findings are of special interest since previously unreported data indicate that 47.9 percent of Allied Health and 54.1 percent of River City coeds stated that their least sexual desire occurred during the menstrual period. Supplemental data on information about sexual intercourse

TABLE 30

Experience with Premarital Sexual Intercourse, by Sample, and Attitude Toward Sexual Intercourse During Menstrual Period

Attitude Toward Sexual Intercourse During Menstrual Period	Allied Health ^a				River City ^b			
	Experienced		Inexperienced		Experienced		Inexperienced	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Totals	49	43.8	63	56.2	14	21.5	51	78.5
Positive	32	65.3	41	65.0	10	71.4	32	62.8
Neutral	7	14.3	6	9.5	0	--	7	13.7
Negative	10	20.4	16	25.5	4	29.6	12	23.5
Totals	49	43.8	63	56.2	14	21.5	51	78.5
Row Totals	49	100.0	63	100.0	14	100.0	51	100.0

^a $\chi^2 = .81$; $p = .68$; d.f. = 2; $C = .085$.

^b $\chi^2 = 2.10$; $p = .39$; d.f. = 2; $C = .177$.

^cDoes not include "no response" for 16 respondents (see Table 54).

^dDoes not include "no response" for 31 respondents (see Table 54).

during the menstrual period can be found in Appendix II (see Table 54).

If there had been a higher response rate from River City coeds, a statistically significant variation might have been found. As the raw frequencies indicated, 32.3 percent of River City and 12.5 percent of Allied Health coeds failed to answer this question. For a number of respondents, intercourse during the menstrual may have represented an unnatural act or a "sin against nature." No one really knows whether some nonrespondents may have been traumatized at the mere suggestion of sexual intercourse during the menstrual period.

7. There is an inverse relationship between ordinal position in the family and having had premarital sexual intercourse.

A statistically significant direct relationship rather than an inverse relationship, as in the stated proposition, was found to exist for the independent variable of ordinal position for River City coeds and was in the direction of the direct relationship for Allied Health coeds (see Table 31). Of River City coeds who had participated in premarital sexual intercourse, 61.6 percent stated that they represented second children in their family of orientation as compared with only 31.9 percent of those who had not participated in premarital sexual intercourse. Only 15.4 percent of the sexually experienced River City coeds were first children

TABLE 31

Experience with Premarital Sexual Intercourse, by Sample, and Ordinal Position in Family

Ordinal Position	Allied Health ^a				River City ^b							
	Experienced		Inexperienced		Experienced		Inexperienced					
	No.	Percent	No.	Percent	No.	Percent	No.	Percent				
First child	26	39.3	65	53.2	91	48.3	4	15.4	53	46.9	57	41.1
Second child	24	36.4	34	27.9	58	30.9	16	61.6	36	31.9	52	37.4
Third child	10	15.2	14	11.5	24	12.8	4	15.4	19	16.8	23	16.5
Fourth child	4	6.1	4	3.3	8	4.3	1	3.8	4	3.5	5	3.6
Fifth-sixth child	2	3.0	1	.8	3	1.6	0	--	1	.9	1	.7
Seventh-eighth child	0	--	4	3.3	4	2.1	1	3.8	0	--	1	.7
Totals	66	35.1	122	64.9	188 ^c	100.0	26	18.7	113	71.3	139 ^d	100.0

^a $\chi^2 = 7.41$; $p = .19$; d.f. = 5; $C = .195$.^b $\chi^2 = 14.62$; $p = .02$; d.f. = 5; $C = .309$.^cDoes not include "no response" for 8 respondents.^dDoes not include "no response" for 1 respondent.

as contrasted with 46.9 percent of those who were sexually inexperienced.

Among Allied Health coeds, 39.3 percent of the sexually experienced reported that they were first children compared to 53.2 percent of the sexually inexperienced. Of the second children in the Allied coeds' group, 36.4 percent were sexually experienced whereas 27.9 percent were sexually inexperienced.

8. There is a direct relationship between planning to be employed after marriage and having had premarital sexual intercourse.

The independent variable of planning to be employed after marriage was found not to be statistically significant for either of the sample groups. Over one-half of Allied Health and River City coeds expressed interest in full-time employment after anticipated future marriages (see Table 32). Since approximately 95 percent of both sample groups stated the intention to be employed on either a full-time or a part-time basis after marriage, statistically significant differences were unlikely to be found between the sexually experienced and inexperienced.

9. There is an inverse relationship between the number of children desired and having had premarital sexual intercourse.

No statistically significant relationship was found to exist between the number of children desired and having had

TABLE 32

Experience with Premarital Sexual Intercourse, by Sample, and Employment Plans Following Marriage

Employment Plans Following Marriage	Allied Health ^a			River City ^b		
	Experienced No. Percent	Inexperienced No. Percent	Row Totals No. Percent	Experienced No. Percent	Inexperienced No. Percent	Row Totals No. Percent
Yes, full time	40 61.5	71 57.7	111 59.0	14 53.8	57 52.3	71 52.6
Yes, part time	20 30.8	48 39.0	68 36.2	12 46.2	45 4.13	57 42.2
No	5 7.7	4 3.3	9 4.8	0 --	7 6.4	7 5.2
Totals	65 34.6	123 65.4	188 ^c 100.0	26 19.3	109 80.7	135 ^d 100.0

^a $\chi^2 = 2.66$; $p = .26$; d.F. = 2; $C = .118$.^b $\chi^2 = 1.80$; $p = .41$; d.F. = 2; $C = .115$.^cDoes not include "no response" for 8 respondents.^dDoes not include "no response" for 5 respondents.

premarital sexual intercourse for either Allied Health or River City coeds (see Table 33). The preferred family size, regardless of the presence or absence of past sexual involvement, was three to four children for both sample groups. Irrespective of the increasing interest of college students in the concept of overpopulation, only 3.6 percent of Allied Health and 2.2 percent of River City coeds expressed the desire to have no children.

In the interest of objectivity, it should be noted that the frequency distributions for both sample groups worked against the stated proposition in terms of establishment of statistical significance.

10. There is a direct relationship between desire to bear children later in marriage and having had premarital sexual intercourse.

The data on the relationship between childbearing and premarital sexual intercourse were in the stated direction for the Allied Health coeds but were not statistically significant for either sample group (see Table 34). The third or fourth year of marriage was viewed as the ideal time for birth of the first child for the majority of both Allied Health and River City coeds. More sexually experienced than inexperienced coeds preferred to wait until the fifth or sixth year of marriage for birth of the first child. This trend may, nevertheless, be questioned because of the small number of responses in the five to six years of marriage category for both sample groups.

TABLE 33

Experience with Premarital Sexual Intercourse, by Sample, and Number of Children Desired

Number of Children Desired	Allied Health ^a				River City ^b			
	Experienced		Inexperienced		Experienced		Inexperienced	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
None	3	4.4	4	3.1	7	3.6	0	--
1-2 children	16	23.5	39	20.7	55	28.2	10	37.0
3-4 children	42	61.8	72	56.7	114	58.5	16	59.3
5-6 children	6	8.8	10	7.9	16	8.2	1	3.7
7-8 children	1	1.5	2	1.6	3	1.5	0	--
Total	68	34.9	127	65.1	195 ^c	100.0	27	19.4
							112	80.6
							139 ^d	100.0

^a $\chi^2 = 1.25$; $p = .87$; d.F. = 4; $C = .080$.^b $\chi^2 = 1.67$; $p = .80$; d.F. = 4; $C = .109$.^cDoes not include "no response" for 1 respondent.^dDoes not include "no response" for 1 respondent.

TABLE 34

Experience with Premarital Sexual Intercourse, by Sample, and When First Child Desired in Marriage

When First Child Desired	Allied Health ^a				River City ^b			
	Experienced		Inexperienced		Experienced		Inexperienced	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
1-2 years	24	35.2	46	36.2	8	29.6	33	29.5
								41
3-4 years	41	60.4	80	63.0	15	55.6	71	63.3
								86
5-6 years	3	4.4	1	.8	4	14.8	8	7.2
								12
Totals	68	34.9	127	65.1	27	19.4	112	80.6
								139 ^d
								100.0

^a $\chi^2 = 2.87$; $p = .25$; d.f. = 2; $C = .120$.^b $\chi^2 = 1.69$; $p = .44$; d.f. = 2; $C = .110$.^cDoes not include "no response" for 1 respondent.^dDoes not include "no response" for 1 respondent.

11. There is a direct relationship between planning to be employed after children are born into a marriage and having had premarital sexual intercourse.

A statistically significant relationship could not be established between planning to be employed after the birth of children and having had premarital sexual intercourse for either Allied Health coeds or River City coeds (see Table 35). About two-thirds of Allied Health and three-fourths of River City coeds planned not to work after giving birth to children in marriage regardless of experience or lack of experience with premarital sexual intercourse. This finding has many interesting implications for administrators of the various Allied Health programs, who are desperately trying to overcome the need for additional qualified personnel in health care delivery.

The high percentage of all coeds not wishing to work after the birth of children to a marriage made statistically significant differences unlikely to exist between the sexually experienced and inexperienced coeds.

12. There is a direct relationship between viewing sexual intercourse as equally pleasurable for males and females and having had premarital sexual intercourse.

While a higher proportion of coeds, in both sample groups, who had not participated in premarital sexual intercourse expressed the opinion that sexual intercourse was

TABLE 35

Experience with Premarital Sexual Intercourse, by Sample, and Employment Plans After Children Born

Employment Plans After Children Born	Allied Health ^a				River City ^b							
	Experienced		Inexperienced		Experienced		Inexperienced					
	No.	Percent	No.	Percent	No.	Percent	No.	Percent				
Yes, full time	5	7.7	6	4.8	11	5.8	2	7.4	7	6.4	9	6.6
Yes, Part time	15	23.1	35	28.0	50	26.3	6	22.2	21	19.3	27	19.9
No	45	69.2	84	67.2	129	67.9	19	70.4	81	74.3	100	73.5
Totals	65	34.2	125	65.8	190 ^c	100.0	27	19.9	109	80.1	136 ^d	100.0

^a $\chi^2 = 1.04$; $p = .61$; d.f. = 2; $C = .074$.^b $\chi^2 = .17$; $p = .92$; d.f. = 2; $C = .035$.^cDoes not include "no response" for 6 respondents.^dDoes not include "no response" for 4 respondents.

usually more pleasurable for men, the difference was not statistically significant for either Allied Health or River City coeds (see Table 36). With the supposed medical orientation of Allied Health coeds, it was very surprising to find that 16.2 percent of the sexually experienced and 20.2 percent of the sexually inexperienced stated that sexual intercourse was usually more pleasurable for the male. This seeming lack of physiological sophistication on the part of Allied Health coeds is further accentuated by the data for River City coeds, in which 11.1 percent of the sexually experienced and 17.1 percent of the sexually inexperienced stipulated that sexual intercourse was usually more pleasurable for the male.

13. There is a direct relationship between having petted to orgasm with a member of the opposite sex and having had premarital sexual intercourse.

Those coeds who had participated in premarital sexual intercourse were twice as likely to have actually experienced an orgasm in the first place as their sexually uninitiated counterparts. These differences were highly statistically significant for both Allied Health and River City coeds (see Table 37). Those coeds who had not experienced sexual intercourse were dependent upon either auto-manipulation or mutual masturbation in attempting to reach orgasm. Thus, their structural opportunities for the potentiality of orgasm were less than those for the sexually experienced coeds.

TABLE 36

Experience with Premarital Sexual Intercourse, by Sample, and for Whom Sexual Intercourse Pleasurable

Sexual Intercourse Pleasurable	Allied Health ^a						River City ^b					
	Experienced			Inexperienced			Experienced			Inexperienced		
	No.	Percent		No.	Percent		No.	Percent		No.	Percent	
Men usually	11	16.2		25	20.2	36	18.8	3	11.1	18	17.1	21
Women usually	1	1.5		4	3.2	5	2.6	2	7.4	1	1.0	3
Men and women equally	56	82.3		95	76.6	151	78.6	22	81.5	86	81.9	108
Totals	68	35.4		124	64.5	192 ^c	100.0	27	20.5	105	79.5	132 ^d
												100.0

^a $\chi^2 = 1.08$; $p = .58$; d.f. = 2; $C = .075$.^b $\chi^2 = 1.46$; $p = .49$; d.f. = 2; $C = .103$.^cDoes not include "no response" for 4 respondents.^dDoes not include "no response" for 8 respondents.

TABLE 37

Experience with Premarital Sexual Intercourse, by Sample, and Experienced Orgasm

Experienced Orgasm	Allied Health ^a				River City [*]			
	Experienced		Inexperienced		Experienced		Inexperienced	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Yes	45	68.2	32	26.4	77	41.2	20	76.9
							38	35.2
No	21	31.8	89	73.6	110	58.8	6	23.1
							70	64.8
Totals	66	35.3	121	64.7	187 ^c	100.0	26	19.4
							108	80.6
							134 ^d	100.0

^a $\chi^2 = 30.70$; $p = .00$; d.f. = 1; $C = .376$.^b $\chi^2 = 14.89$; $p = .00$; d.f. = 1; $C = .316$.^c Does not include "no response" for 9 respondents.^d Does not include "no response" for 6 respondents.

Allied Health coeds who had premarital sexual intercourse were found to have experienced the first orgasm at a statistically significantly later age than those coeds who had not participated in premarital sexual intercourse (see Table 38). The differences in age at first orgasm for the River City coeds were not statistically significant. The data indicate that the most frequently reported age for first orgasm was 16 to 18 years for the majority of the sexually inexperienced Allied Health and River City coeds, as compared with 19 to 21 years being reported for the sexually experienced in both sample groups.

No specific data were obtained on unsuccessful attempts at masturbation, with successful being defined as obtaining orgasmic relief. It seems plausible, however, that those coeds who have had premarital sexual intercourse may have participated in the hope that it would aid in obtaining physical relief for physiological frustration. It has been reported that females experience abdominal stress if they become sexually aroused and do not experience orgasm (Bronstein, 1974).

This lack of statistical significance for River City coeds may have been a partial function of the nonresponse rate of 32.8 percent for River City coeds. The reason for this nonresponse rate is subject to much conjecture. Could it be lack of recall, particularly, if the first orgasm occurred at a relatively early age. Or did guilt feelings return to the conscious level because of the question?

TABLE 38

Experience with Premarital Sexual Intercourse, by Sample, and Age at First Orgasm

Age at First Orgasm	Allied Health ^a				River City ^b			
	Experienced		Inexperienced		Experienced		Inexperienced	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
15 years and under	3	6.6	2	6.4	2	10.6	3	51.0
16-18 years	13	28.9	19	61.4	8	42.1	10	50.0
19-21 years	26	57.9	8	25.8	9	47.3	7	35.0
22 years and over	3	6.6	2	6.4	0	--	0	--
Totals	45	59.2	31	40.8	19	48.7	20	51.3
							39 ^d	100.0

^a $\chi^2 = 8.78$; $p = .04$; d.f. = 3; $C = .322$.^b $\chi^2 = .64$; $p = .89$; d.f. = 3; $C = .127$.^c Does not include "no response" for 1 respondent (see Table 22).^d Does not include "no response" for 19 respondents (see Table 22).

For River City coeds, the stated proposition concerned with a direct relationship between having petted to orgasm and premarital sexual intercourse was shown to be statistically significant. The difference for Allied Health coeds, while not statistically significant, was very much in the stated direction of the proposition (see Table 39). Besides the main issue at hand, 29.7 percent of Allied Health and 20.0 percent of River City coeds were technical virgins; that is to say, they had petted to orgasm with a member of the opposite sex but had not had actual sexual intercourse with penetration.

14. There is a direct relationship between expressed dissatisfaction with petting to orgasm and having had premarital sexual intercourse.

No evidence of a statistically significant relationship was found to exist for either sample group between expressed dissatisfaction with petting to orgasm and having had premarital sexual intercourse (see Table 40). Attention is, nonetheless, called to the fact that slightly over one-half of those coeds, in both sample groups, who had petted to orgasm but had never participated in premarital sexual intercourse expressed feelings of dissatisfaction.

It would be of interest to know how many of these coeds will eventually succumb to erotic desires and have premarital sexual intercourse. As was discussed earlier, physiological frustration may serve as a possible motivating

TABLE 39

Experience with Premarital Sexual Intercourse, by Sample, and Petted to Orgasm

Petted to Orgasm	Allied Health ^a						River City ^b					
	Experienced		Inexperienced		Row Totals		Experienced		Inexperienced		Row Totals	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Yes	28	43.1	35	29.7	63	34.4	10	41.7	20	20.0	30	24.2
No	37	56.9	83	70.3	120	65.6	14	58.3	80	80.0	94	75.8
Totals	65	35.5	118	64.5	183 ^c	100.0	24	19.4	100	80.6	124 ^d	100.0

^a $\chi^2 = 3.34$; $p = .08$; d.f. = 1; $C = .134$.^b $\chi^2 = 4.94$; $p = .03$; d.f. = 1; $C = .196$.^cDoes not include "no response" for 13 respondents.^dDoes not include "no response" for 16 respondents.

TABLE 40

Experience with Premarital Sexual Intercourse, by Sample, and Expressed Dissatisfaction with Petting to Organs

Dissatisfaction with Petting to Orgasm	Allied Health ^a						River City ^b					
	Experienced			Inexperienced			Experienced			Inexperienced		
	No.	Percent	Row Totals	No.	Percent	Row Totals	No.	Percent	Row Totals	No.	Percent	Row Totals
Yes	13	46.4	18	51.4	31	49.2	4	40.0	11	55.0	15	50.0
No	15	53.6	17	48.6	32	50.8	6	60.0	9	45.0	15	50.0
Totals	28	44.4	35	55.6	63 ^c	100.0	10	33.3	20	66.7	30 ^d	100.0

^a $\chi^2 = .16$; $p = .70$; d.F. = 1; $C = .050$.^b $\chi^2 = .60$; $p = .46$; d.F. = 1; $C = .140$.^cSee Table 23.^dSee Table 23.

factor in the decision to participate in premarital sexual intercourse.

15. There is a direct relationship between self-classification as knowledgeable about reproductive physiology and having had premarital sexual intercourse.

No statistically significant relationship was found to exist for either sample group between having had premarital sexual intercourse and knowledge about reproductive physiology (see Table 41). As was anticipated, the Allied Health coeds were somewhat more knowledgeable about matters of reproductive physiology than the River City coeds. Since the preponderance of respondents was classified as being knowledgeable, the likelihood of finding statistically significant differences between the sexually experienced and the inexperienced was greatly diminished.

16. There is a direct relationship between being knowledgeable about the female orgasm and having had premarital sexual intercourse.

The definition of the female orgasm was rated on a continuum ranging from knowledgeable to not at all knowledgeable by a panel of judges, as in the earlier discussion in Chapter III. Using these data as criteria, the stated proposition was shown to be statistically significant for River City and Allied Health coeds (see Table 42). The judges appear to have rigidly applied the criterion of

TABLE 41

Experience with Premarital Sexual Intercourse, by Sample, and Knowledge About Reproductive Physiology

Knowledge About Reproductive Physiology	Allied Health ^a				River City ^b			
	Experienced		Inexperienced		Experienced		Inexperienced	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Knowledgeable	61	89.7	115	89.8	176	89.8	19	70.4
							68	61.3
Slightly knowledgeable	6	8.8	13	10.2	19	9.7	8	29.6
							41	36.9
Not at all knowledgeable	1	1.5	0	--	1	.5	0	--
							2	1.8
Totals	68	34.7	128	65.3	196 ^c	100.0	27	19.6
							111	80.4
							138	100.0

^a $\chi^2 = 1.94$; $p = .37$; d.F. = 2; $C = .099$.^b $\chi^2 = 1.10$; $p = .58$; d.F. = 2; $C = .089$.^cDoes not include "no response" for 2 respondents.

TABLE 42

Experience with Premarital Sexual Intercourse, by Sample, and Knowledgeable About Definition of Female Orgasm

Definition of Female Orgasm	Allied Health ^a				River City ^b			
	Experienced		Inexperienced		Experienced		Inexperienced	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Knowledgeable	8	11.8	13	10.2	21	10.7	4	14.8
Slightly knowledgeable	36	52.9	47	36.7	83	42.4	16	59.3
Not at all knowledgeable	19	27.9	30	23.4	49	25.0	5	18.5
No response	5	7.4	38	29.7	43	21.9	2	7.4
Total	68	34.7	128	65.3	196	100.0	27	19.3
							113	80.7
							140	100.0

 $\chi^2 = 13.32; p = .01; d.f. = 3; C = .252.$
 $\chi^2 = 12.27; p = .01; d.f. = 3; C = .284.$

knowledge in placing a respondent in the category of knowledgeable about the definition of the female orgasm. This aspect of the coding procedures resulted in a plurality of the sexually experienced and inexperienced in both sample groups being placed in the slightly knowledgeable category. Nevertheless, as the data indicated, over one-half of sexually experienced coeds were classified as slightly knowledgeable as compared with only about one-third of sexually inexperienced coeds in either sample group. An unanticipated finding was that a higher proportion of River City coeds than of Allied Health coeds was rated as being knowledgeable about the definition of female orgasm.

Among those respondents who had not participated in premarital sexual intercourse, 29.7 percent of Allied Health and 35.4 percent of River City coeds failed to respond to this question. The majority of the nonresponses to this question can be logically attributed to a lack of knowledge, since only a definition was sought rather than information about personal behavior.

The narrative description of the female orgasm was found to be statistically significant for the River City but not for the Allied Health coeds (see Table 43). It will be recalled that a number of Allied Health coeds were not afforded the opportunity to answer this query about the orgasmic description. With the resulting smaller N for those Allied Health coeds who had actually participated in

TABLE 43

Experience with Premarital Sexual Intercourse, by Sample, and Knowledgeable About Description of Female Orgasm

Description of Female Orgasm	Allied Health ^a				River City ^b							
	Experienced		Inexperienced		Experienced		Inexperienced					
	No.	Percent	No.	Percent	No.	Percent	No.	Percent				
Knowledgeable	6	18.2	12	14.1	18	15.3	3	11.1	6	5.3	9	6.4
Slightly knowledgeable	9	27.2	19	22.4	28	23.7	6	22.2	11	9.7	17	12.1
Not at all knowledgeable	6	18.2	24	28.2	30	25.4	10	37.1	28	24.8	38	27.1
No response	12	36.4	30	35.3	42	35.6	8	29.6	68	60.2	76	54.4
Totals	33	28.0	85	72.0	118 ^c	100.0	27	19.3	113	80.7	140	100.0

^a $\chi^2 = 1.45$; $p = .70$; d.f. = 3; $C = .110$.

^b $\chi^2 = 8.88$; $p = .04$; d.f. = 3; $C = .244$.

^c Does not include "no response" for 78 respondents (see Chapter 3).

premarital sexual intercourse, the possibility exists that a larger N might have led to statistical significance for the independent variable.

For Allied Health coeds, a combined total of 45.4 percent of the sexually experienced were classified as having at least some knowledge about the mental and physiological sensation associated with female orgasm, as contrasted with only 36.5 percent of those who were sexually inexperienced. Among River City coeds, a combined total of 33.3 percent of the sexually experienced were classified as having at least some knowledge about the mental and physiological sensations associated with female orgasm, as compared with only 15.0 percent of those who were sexually inexperienced.

The evident lack of factual knowledge about female orgasm on the part of River City coeds who had not had premarital sexual intercourse was substantiated by the 60.2 percent of the respondents who did not attempt to answer this question. This lack of response cannot be attributed solely to the intimacy of the question, since only 35.4 percent of this sample group failed to answer the question about the definition of female orgasm.

17. There is a direct relationship between contraceptive knowledge and having had premarital sexual intercourse.

The independent variable of contraceptive knowledge was found to be statistically significant for River City coeds

and in the stated direction for Allied Health coeds (see Table 44). Oral steroids were reported as the single most effective method of contraception for the Allied Health and River City coeds, irrespective of whether they had participated in premarital sexual intercourse. A higher proportion of River City coeds indicated oral steroids as being the most effective method of contraception when contrasted with Allied Health coeds. The sexually inexperienced coeds in both sample groups tended to specify ineffective methods of contraception more often than the sexually experienced coeds.

18. There is a direct relationship between commitment to a serious dating relationship and having had premarital sexual intercourse.

A statistically significant relationship was found between commitment to a serious dating relationship and having had premarital sexual intercourse for the Allied Health coeds, and this relationship was in the stated direction of the independent variable for the River City coeds (see Table 45). It is of interest to note that 47.0 percent of Allied Health and 55.5 percent of River City coeds who had participated in premarital sexual intercourse were committed to a serious dating relationship in which marriage could be considered the logical outcome, whereas only 27.5 percent of Allied Health and 31.8 percent of River City coeds who had not participated in premarital sexual intercourse were similarly involved.

TABLE 44

Experience with Premarital Sexual Intercourse, by Sample, and Contraceptive Technique Thought To Be Effective

Contraceptive Technique	Allied Health ^a				River City ^b							
	Experienced		Inexperienced		Experienced		Inexperienced					
	No.	Percent	No.	Percent	No.	Percent	No.	Percent				
Most Effective	Row Totals		Row Totals		Row Totals		Row Totals					
	No.	Percent	No.	Percent	No.	Percent	No.	Percent				
Abstinence	3	4.3	5	4.3	8	4.3	0	--	4	4.9	4	3.8
Diaphragm	1	1.4	6	5.2	7	3.8	0	--	3	3.7	3	2.9
Don't know	0	--	2	1.7	2	1.1	0	--	8	9.7	8	7.7
IUD	7	10.1	9	7.9	16	8.8	2	8.7	5	6.1	7	6.7
Oral steroid	58	84.2	86	74.8	144	78.2	21	91.3	60	73.2	81	77.2
Other ^c	0	--	7	6.1	7	3.8	0	--	2	2.4	2	1.7
Totals	69	37.5	115	63.5	184 ^d	100.0	23	21.9	82	78.1	105 ^e	100.0

^a $\chi^2 = 7.73$; $p = .18$; d.f. = 5; $C = .201$.

^b $\chi^2 = 15.52$; $p = .01$; d.f. = 5; $C = .359$.

^cThis category includes cervical cap; coitus interruptus; foam, aerosol, rhythm; and sterilization of male and female.

^dDoes not include "no response for 12 respondents."

^eDoes not include "no response" for 25 respondents.

TABLE 45

Experience with Premarital Sexual Intercourse, by Sample, and Current Dating Status

Dating Status	Allied Health ^a				River City ^b			
	Experienced		Inexperienced		Experienced		Inexperienced	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Not dating	0	--	4	3.1	4	2.1	1	3.7
Casual dating	21	31.8	64	50.5	85	44.0	8	29.6
Dating steadily	14	21.2	24	18.9	38	19.7	3	11.1
Engaged-to-be-engaged	14	21.2	25	19.6	39	20.2	9	33.3
Engaged	17	25.8	10	7.9	27	14.0	6	22.2
Total	66	34.2	127	65.8	193 ^c	100.0	27	19.3
							113	80.7
							140	100.0

^a $\chi^2 = 24.71$; $p = .00$; d.f. = 4; $C = .337$.^b $\chi^2 = 5.66$; $p = .24$; d.f. = 4; $C = .197$.^cDoes not include "no response" for 3 respondents.

These data support the earlier contention that premarital sexual intercourse is more likely to occur in the context of a meaningful relationship for females.

19. There is a direct relationship between college academic class standing and having had premarital sexual intercourse.

Academic class standing was shown to be statistically significant for Allied Health coeds but not for River City coeds (see Table 46). River City freshmen were more likely to have participated in premarital sexual intercourse than were River City sophomores, juniors, or seniors. Allied Health seniors were more likely to have had premarital sexual intercourse than were Allied Health freshmen, sophomores, or juniors.

These data further substantiate the earlier findings that River City coeds who have had premarital sexual intercourse tended to become sexually active at earlier ages than Allied Health coeds.

20. There is a direct relationship between expressed preference for a liberal Protestant denomination and having had premarital sexual intercourse.

While no statistically significant relationship was found between expressed preference for a liberal Protestant denomination and having had premarital sexual intercourse, the relationships for both sample groups were in the stated direction of the independent variable (see Table 47).

TABLE 46

Experience with Premarital Sexual Intercourse, by Sample, and Academic Class Standing

Academic Class Standing	Allied Health ^a				River City ^b							
	Experienced		Inexperienced		Experienced		Inexperienced					
	No.	Percent	No.	Percent	No.	Percent	No.	Percent				
Freshman	10	14.7	21	16.4	31	15.8	11	40.8	35	31.0	46	32.9
Sophomore	4	5.9	28	21.9	32	16.3	6	22.2	36	31.8	42	30.0
Junior	24	35.3	41	32.0	65	33.2	6	22.2	28	24.8	34	24.3
Senior	30	44.1	38	29.7	68	34.7	4	14.8	14	12.4	18	12.8
Totals	68	34.7	128	65.3	196	100.0	27	19.3	113	80.7	140	100.0

^a $\chi^2 = 9.85$; $p = .02$; d.f. = 3; $C = .219$.^b $\chi^2 = 1.47$; $p = .69$; d.f. = 3; $C = .102$.

TABLE 47
Experience with Premarital Sexual Intercourse, by Sample, and Religious Preference

Religious Preference	Allied Health ^a				River City ^b			
	Experienced		Inexperienced		Experienced		Inexperienced	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
No preference	7	10.3	4	3.1	11	5.6	1	3.7
Episcopal	8	11.8	6	4.7	14	7.2	6	22.3
Methodist and Presbyterian	20	29.4	46	36.2	66	33.8	9	33.3
Catholic	4	5.9	7	5.5	11	5.6	3	11.1
Baptist and Lutheran	25	36.8	60	47.3	85	43.6	7	25.9
Others	4	5.8	4	3.2	8	4.2	1	3.7
Totals	68	34.9	127	65.1	195 ^c	100.0	27	19.3
							113	80.7
							140	100.0

^a $\chi^2 = 8.43$; $p = .14$; d.F. = 5; $C = .204$.

^b $\chi^2 = 5.85$; $p = .33$; d.F. = 5; $C = .200$.

^c Does not include "no response" for 1 respondent.

The work of Greeley was used as a basis for categorizing the various denominations on a continuum of liberalism-conservatism. While some researchers may differ with Greeley as to the appropriate position of a given denomination on the continuum, as well as the use of a joint classification category for some Protestant denominations, his typology does appear to be empirically defensible (Greeley, 1972).

Of the denominations represented in these data, the Episcopalians had a higher percentage of adherents who had experienced premarital sexual intercourse, when contrasted with its adherents not having experienced premarital sexual intercourse, than any other denomination for both sample groups. From the standpoint of data analysis, it would have been highly desirable to have had a larger number of Episcopalians and Catholics and fewer Baptists and Methodists in the samples (see Table 5).

21. There is an inverse relationship between church attendance and having had premarital sexual intercourse.

An inverse relationship between church attendance and having had premarital sexual intercourse was shown to be statistically significant for Allied Health and River City coeds (see Table 48). These data indicated that the mean number of times for church attendance per month was 2.1 times for those who had experienced premarital sexual intercourse and 3.1 times for those who had not experienced

TABLE 48

Experience with Premarital Sexual Intercourse, by Sample, and Frequency of Church Attendance

Church Attendance by Month	Allied Health ^a				River City ^b							
	Experienced		Inexperienced		Experienced		Inexperienced					
	No.	Percent	No.	Percent	No.	Percent	No.	Percent				
None	14	22.5	11	8.8	25	13.4	6	23.0	9	8.2	15	11.0
1-2 times	27	43.5	34	27.2	61	32.6	8	30.8	27	24.5	35	25.7
3-4 times	14	22.6	60	48.0	74	39.5	10	38.5	32	29.1	42	30.9
5-6 times	5	8.1	15	12.0	20	10.7	2	7.7	13	11.8	15	11.0
7-8 times	2	3.2	3	2.4	5	2.7	0	--	8	7.3	8	5.9
9-10 times	0	--	2	1.6	2	1.1	0	--	21	19.1	21	15.5
Totals	62	33.2	125	66.8	187 ^c	100.0	26	19.1	110	80.9	136 ^d	100.0

^a $\chi^2 = 17.75$; $p = .01$; d.f. = 5; $C = .294$.^b $\chi^2 = 36.95$; $p = .00$; d.f. = 5; $C = .462$.^cDoes not include "no response" for 9 respondents.^dDoes not "no response" for 4 respondents.

premarital sexual intercourse among the Allied Health coeds. The contrasting church attendance data for the River City coeds was 2.2 times per month for those who had experienced premarital sexual intercourse and 4.4 times per month for those who had not. In general, church attendance has tended to lessen when college students begin living away from parental influence. This factor would partially account for the variations between Allied Health and River City coeds.

22. There is an inverse relationship between father's social class by occupation and having had premarital sexual intercourse.

No statistically significant relationship was found between father's social class by occupation and having participated in premarital sexual intercourse for either sample group. Nevertheless, the relationships were in the direction of being of a direct nature rather than an inverse nature for the River City coeds only (see Table 49). A higher proportion of daughters of professionals and business executives had had premarital sexual intercourse than any other occupational grouping among Allied Health and River City coeds.

These data were contrary to the popular opinion that lower class females are more likely to engage in premarital sexual intercourse than middle and upper class females. River City and Allied Health coeds whose fathers were in skilled, semiskilled, or unskilled occupations were less

TABLE 49

Experience with Premarital Sexual Intercourse, by Sample, and Father's Occupation

Father's Occupation	Allied Health ^a				River City ^b							
	Experienced		Inexperienced		Experienced		Inexperienced					
	No.	Percent	No.	Percent	No.	Percent	No.	Percent				
Farmer	1	1.5	5	4.0	6	3.1	0	--	2	1.8	2	1.4
Professional and business executive	32	47.1	46	36.5	78	40.2	16	59.3	40	36.1	56	40.6
White-collar worker and small business man	16	23.5	36	28.5	52	26.8	5	18.5	34	30.6	39	28.3
Skilled worker	16	23.5	33	26.2	49	25.3	6	22.2	32	28.8	38	27.5
Semiskilled and unskilled worker	3	4.4	6	4.8	9	4.6	0	--	3	2.7	3	2.2
Totals	68	35.1	126	64.9	194 ^c	100.0	27	19.6	111	80.4	138 ^d	100.0

^a $\chi^2 = 2.65$; $p = .62$; d.f. = 4; $C = .116$.^b $\chi^2 = 5.57$; $p = .36$; d.f. = 4; $C = .197$.^cDoes not include "no response" for 2 respondents.^dDoes not include "no response" for 2 respondents.

likely to have engaged in premarital sexual intercourse than those whose fathers were employed as professionals or business executives. With larger samples for both groups, it is entirely possible that these relationships would have proved to be statistically significant.

Some Related Findings

Type of Personal Hygiene Product Used

Despite numerous appeals to the "Now" generation made by various purveyors of tampon-type hygiene products, sexually inexperienced Allied Health coeds were statistically less likely to choose a tampon for use during menstrual periods (see Table 50). River City coeds who had not had premarital sexual intercourse chose to use tampons for menstrual periods 18 percent less frequently than their sexually experienced counterparts. Among Allied Health coeds, the sexually inexperienced coeds used tampons 14.3 percent less frequently for menstrual periods when compared with sexually experienced counterparts. From the medical point of view, tampons are considered to be at least equal to sanitary napkins in their suitability as a personal hygiene product (Newton, 1965); yet, tampons provide a much more carefree method of coping with menstrual periods. So why the variation in the usage patterns? One explanation is that many virgins seem somewhat reluctant to touch and handle themselves "down there." Another explanation is that many

TABLE 50

Experience with Premarital Sexual Intercourse, by Sample, and Type of Personal Hygiene Product Used
During Menstrual Period

Type of Personal Hygiene Product	Allied Health ^a				River City ^b							
	Experienced		Inexperienced		Experienced		Inexperienced					
	No.	Percent	No.	Percent	No.	Percent	No.	Percent				
Sanitary napkins	10	14.7	35	27.3	45	23.0	7	25.9	49	43.8	56	40.3
Tampons	43	63.2	58	45.3	101	51.5	13	48.1	39	34.8	52	37.4
Both tampons and sanitary napkins	15	22.1	35	27.3	50	25.5	7	25.9	24	21.4	31	22.3
Totals	68	34.7	128	65.3	196	100.0	27	19.4	112	80.6	139 ^c	100.0

^a $\chi^2 = 6.34$; $p = .05$; d.F. = 2; $C = .177$.

^b $\chi^2 = 2.95$; $p = .24$; d.F. = 2; $C = .144$.

^cDoes not include "no response" for 1 respondent.

virgins fear that the hymen will be unduly stretched during the insertion and removal of the tampon. Still other women are unable to accept their bodily odors and processes and are more likely to be sexually inhibited (Newton, 1965).

Painful Menstrual Periods

For some, as yet unexplained, reason, River City coeds who had experienced premarital sexual intercourse reported experiencing painful menstrual periods significantly more often than those respondents who had not participated in premarital sexual intercourse (see Table 51). While Moos et al. argue that as high as 70 to 80 percent of normal young women experience moderate to severe discomfort during menstrual periods, they fail to account for the statistically significant differences which exist with regard to the pain levels experienced by respondents who have and have not participated in premarital sexual intercourse (Moos et al., 1969: 37). It is entirely plausible that guilt on the part of some respondents who have participated in premarital sexual intercourse may result in an increased incidence of painful menstrual periods. According to both Edwin S. Bronstein, M.D., and Preston Lea Wilds, M.D., of the Department of Obstetrics and Gynecology at Southern Medical School, feelings of guilt associated with participation in premarital sexual intercourse could serve to produce painful menstrual periods in those susceptible individuals (Bronstein, 1974; Wilds, 1974).

TABLE 51

Experience with Prenatal Sexual Intercourse, by Sample, and Type of Menstrual Period Experienced

Type of Menstrual Period	Allied Health ^a				River City ^b							
	Experienced		Inexperienced		Experienced		Inexperienced					
	No.	Percent	No.	Percent	No.	Percent	No.	Percent				
Painful	23	33.8	33	25.8	56	28.6	7	25.9	5	4.4	12	8.6
Slightly painful	29	42.7	65	50.8	94	47.9	14	51.8	15	13.3	29	20.7
Not painful	16	23.5	30	23.4	46	23.5	6	22.3	93	82.3	99	70.7
Totals	68	34.7	128	65.3	196	100.0	27	19.3	113	80.7	140	100.0

^a $\chi^2 = 1.62$; $p = .46$; d.f. = 2; $C = .091$.^b $\chi^2 = 38.58$; $p = .00$; d.f. = 2; $C = .465$.

CHAPTER V

THEORIES OF PREMARITAL SEXUAL INTERCOURSE

The Methodology of Theory Construction

A modified version of the axiomatic approach to theory construction, as set forth by Zetterberg (1965), will be utilized to develop theoretical explanations relative to participation in premarital sexual intercourse by females.

The following four-step procedure for the axiomatic approach to theory construction has been suggested by Zetterberg:

1. A thorough search of all research literature relevant to the stated problem and a subsequent listing of all empirical propositions should be made. Frequently, empirical propositions will have to be extracted from existing data, because formally stated propositions do not appear in many of the research reports. If more than one citation should be found for the same proposition, a notation should be made as to whether the additional citations lend support to, or refute, the empirical proposition in question.
2. A retroduction of the empirical propositions should be made by raising the level of abstraction for the

independent variables. These "new" propositions would subsequently be referred to as derived propositions.

3. A further retroduction should be made using the derived propositions. At this level of abstraction, an attempt would be made to subsume as many independent variables as possible under one empirically based proposition. These newly developed propositions would then be referred to as theoretical propositions.
4. Finally, theoretical propositions could then be utilized to form a general theory of the highest generality possible in such a manner that it would have validity for human interaction in general (Zetterberg, 1965:157-174).

This theory construction approach suggested by Zetterberg was modified somewhat for the purposes of this dissertation. After the search of relevant research literature was conducted, a series of empirical propositions was enumerated. From this series, certain propositions were selected for empirical testing. Additional propositions, not found in the search of the research literature, were developed as a part of the "Sex Attitudes and Behavior in a Medical Milieu" research project. Those empirical propositions that were found to be either statistically significant, or in the stated direction of the relationship contained in the

proposition, for at least one of the two sample groups, have been retained for inclusion in the theory construction phase.

The existing small N for those River City coeds who had participated in premarital sexual intercourse stemmed, indirectly, from the decision that it was inappropriate from a methodological point of view to combine this sample group with the Allied Health coeds. It was, therefore, necessary that both sample groups be treated as independent samples. Were it not for the small N in the subsamples, it is quite plausible that different results might have been obtained which would have led to a number of additional independent variables possibly becoming statistically significant, rather than being merely in the category of "in the stated direction of." Some theorists may disagree, in part at least, with some of the criteria used for the inclusion of propositions for theory construction. It is, nevertheless, in the best interests of the advancement of family sociology that attempts at theory construction occur whenever the feasibility exists.

With the foregoing modifications, the theory construction technique suggested by Zetterberg and later advanced by the works of Berardo, Bartz and Nye will be closely paralleled (Zetterberg, 1965; Berardo, 1969; Bartz and Nye, 1970).

Empirical Propositions for Theory Construction

- A. There is a direct relationship between age at first menstruation and having had premarital sexual intercourse.
- B. There is a direct relationship between the age at which one learns where babies come from and having had premarital sexual intercourse.
- C. There is a direct relationship between a positive attitude toward oral-genital sex and having had premarital sexual intercourse.
- D. There is a direct relationship between a positive attitude toward masturbation and having had premarital sexual intercourse.
- E. There is a direct relationship between a positive attitude toward sexual intercourse during the menstrual period and having had premarital sexual intercourse.
- F. There is a direct relationship between ordinal position in the family and having had premarital sexual intercourse.
- G. There is a direct relationship between desire to bear children later in marriage and having had premarital sexual intercourse.
- H. There is a direct relationship between having petted to orgasm with a member of the opposite sex and having had premarital sexual intercourse.

- I. There is a direct relationship between being knowledgeable about the female orgasm and having had premarital sexual intercourse.
- J. There is a direct relationship between contraceptive knowledge and having had premarital sexual intercourse.
- K. There is a direct relationship between commitment to a serious dating relationship and having had premarital sexual intercourse.
- L. There is a direct relationship between college academic class standing and having had premarital sexual intercourse.
- M. There is a direct relationship between expressed preference for a liberal Protestant demonination and having had premarital sexual intercourse.
- N. There is an inverse relationship between church attendance and having had premarital sexual intercourse.
- O. There is a direct relationship between father's social class by occupation and having had premarital sexual intercourse.

Derived Propositions

Through the process of retroduction described earlier, the following derived propositions about premarital sexual intercourse among females were delineated.

Derived Proposition 1

Females who perceive norms of sexual permissiveness

in their peer group are more likely to engage in premarital sexual intercourse than females who do not perceive norms of sexual permissiveness in their peer group.

Empirical propositions F, G, H, J, K, and M were combined to form Derived Proposition 1. Each of these empirical propositions contains empirical indicators of peer group influence. These peer groups provide a setting for social interaction and value formation. Changes in status such as postponement of childbirth and changes in academic class standing may result in the acquisition of new significant others, with consequent new self-definitions (Broom and Selznick, 1973:239; Hyman, 1942, 1960). The middle child and older children in the family of orientation are very likely to have a set of peers different from those of first and only children.

Societal norms, particularly in the South, are moving slowly toward acceptance of the premise that sexual intercourse can and should be pleasurable for women. The influence of peer groups in this regard would appear evident. Women, in a general sort of way, often develop and share sexual attitudes in the context of the peer group. Considerable knowledge about contraception and female orgasm would likely have its origins in the female's peer group. Numerous past studies have established that peers do provide sexual information more often than parents. In the case

of both Allied Health and River City coeds, mothers were much more likely to have told their daughters about having menstrual periods than where babies come from.

Derived Proposition 2

Females who are more permissive in their attitudes are more likely to engage in premarital sexual intercourse than females who are less permissive in their attitudes.

Empirical propositions C, D, E, and H were combined to form Derived Proposition 2. These four propositions all offer evidence of a liberal attitude toward various types of sexual experiences and social life, in general, as contrasted with a conservative outlook (Reiss, 1967). Possessing a positive attitude toward having oral-genital sex in a state where such sexual contacts are defined as illegal, even for married couples, would seem to represent a certain degree of liberalism. Petting to orgasm would also involve an acceptance of mutual masturbation which tends toward the liberal end of the conservative-liberal continuum as well.

Derived Proposition 3

Females involved in an affectional relationship are more likely to engage in premarital sexual intercourse than females not involved in an affectional relationship.

Empirical proposition L was used to formulate Derived Proposition 3. Females have tended to place more emphasis

on the affectional and tenderness aspects of sexual activity as contrasted with the emphasis on physical release by the male (Freeman and Freeman, 1966).

Derived Proposition 4

Females will vary in rates of premarital sexual intercourse in accordance with their social class value system.

Empirical propositions M and O were combined to form Derived Proposition 4. These propositions were combined because they possess empirical indicators of the concept social class. For example, if religious denominations were ranked on a continuum according to social class, Episcopalians would tend to be in the upper or upper middle class (Reiss, 1967:62).

Derived Proposition 5

Among females, there is likely to be an inverse relationship between religious orthodoxy and participation in premarital sexual intercourse.

Empirical proposition N was used to develop Derived Proposition 5. Church attendance has frequently been used in past social science surveys to indicate the degree of religiosity for an individual. Organized religion has been often cited as a source of the guilt sometimes associated with premarital sexual activity among females (Clayton, 1972: 274-276; Reiss, 1967:105-125).

Derived Proposition 6

There is a direct relationship between age at first menstruation and having had premarital sexual intercourse.

Empirical proposition A cannot be subsumed elsewhere and thus becomes Derived Proposition 6 (Zetterberg, 1965).

Derived Proposition 7

There is a direct relationship between the age at which one learns where babies come from and having had premarital sexual intercourse.

Empirical proposition B cannot be subsumed elsewhere and thus becomes Derived Proposition 7 (Zetterberg, 1965).

Theoretical Propositions

A reapplication of the retroduction process produced four theoretical propositions about premarital sexual intercourse among females.

Theoretical Proposition I

Females who perceive norms of sexual permissiveness from reference groups are more likely to participate in premarital sexual intercourse than females who do not perceive norms of sexual permissiveness from reference groups.

Derived Propositions 1, 2, 4, and 5 were used to formulate Theoretical Proposition I. The rationale for combining

the foregoing propositions is grounded in reference group theory. A reference group refers to any group whose standards an individual takes for his own. Individuals are known to often reject the societal values which their elders support as part of the larger society. Illustrative of such rejected values are those associated with the church, Girl Scouts, and Boy Scouts. White middle class college students, in defiance of their parents, have, from time to time, given their support to Black or Radical Left activities on many college campuses (Leslie, Larson, and Gorman, 1973:196-197; Merton, 1957). Hyman found that the three most important reference group sources cited among college students were, in order of mention: economic, intellectual, and social. Religion was also reported, but it was ranked in the twelfth position (Hyman, 1942:1-94; Hyman, 1960:303-396).

Theoretical Proposition II

Females involved in an affectional relationship are more likely to engage in premarital sexual intercourse than females not involved in an affectional relationship.

Derived Proposition 3 could not be subsumed elsewhere, so it became Theoretical Proposition II (Zetterberg, 1965).

Theoretical Proposition III

There is a direct relationship between age at first menstruation and having had premarital sexual intercourse.

Derived Proposition 6 cannot be subsumed elsewhere and thus becomes Theoretical Proposition III (Zetterberg, 1965).

Theoretical Proposition IV

There is a direct relationship between the age at which one learns where babies come from and having had premarital sexual intercourse.

Derived Proposition 7 cannot be subsumed elsewhere and thus becomes Theoretical Proposition IV (Zetterberg, 1965).

Two Middle-Range Theories of Premarital Sexual Intercourse

After consideration of all available data, it was concluded that no single theoretical approach exists which will adequately predict the likelihood of the social phenomenon of premarital sexual intercourse occurring. Secondly, the current state of knowledge in sociology does not permit the formulation of a grand theory of premarital sexual intercourse which would be applicable in the majority of societal situations. With these assumptions in mind, two theoretical frames of reference have been suggested by careful study of theoretical propositions which appear to be especially fruitful. These theoretical frames of reference are exchange theory and reference group theory, which is a component part of symbolic interaction theory. Exchange theory involves social interaction in which one gives something of value in order to get something valued in return (Blau, 1964).

Reference group theory involves groups of which one is a member, and significant groups of which one is not a member, becoming focal points of reference for the shaping of attitudes, values, and behavior (Merton, 1957:281-286).

Theory I

The participation of females in premarital sexual intercourse will be found to vary directly with the degree to which norms of sexual permissiveness are perceived within the cultural milieu.

This theory of middle range was derived by applying the reference group theory model to Theoretical Proposition I. Support for the reference group model was found in Christensen's theory of relative consequences, Reiss's general theory of premarital sexual intercourse, and in the work of Mirande. Reiss's theory appears to be merely the product of all known, statistically significant variables squeezed into a theory that may well result in a methodological dilemma when field testing occurs (Christensen, 1969; Mirande, 1968; Reiss, 1967).

Theory II

Participation in premarital sexual intercourse by females will be found to vary directly with the degree of affection existing for the potential sex partner.

A second theory of the middle range was derived by applying the exchange theory model to Theoretical Proposition

II. An earlier theory expounded by Reiss contains the element of courtship, but one cannot necessarily assume that courtship is a prerequisite for the existence of affection. For this reason, one must reject that portion of the Reiss theory. Support for the use of the exchange theory model was found in the conceptualization of Waller's principle of least interest (Waller, 1938:275), in Nye and Berardo's discussion of mate selection in The Family: Its Structure and Interaction (Nye and Berardo, 1973:109-168), and in the discussion of dating by Leslie et al. in Order and Change (1973:61-63).

CHAPTER VI

SUMMARY, IMPLICATIONS FOR FUTURE RESEARCH, AND CONCLUSIONS

Summary

The primary objectives of this dissertation were to develop theoretical propositions about premarital sexual intercourse among females, using a modified axiomatic approach to theory construction, and to subsequently formulate one or more middle-range theories about premarital sexual intercourse. To facilitate the accomplishment of the stated objectives, this empirical investigation was divided into four component stages.

First, a thorough review of all the reported research literature relevant to the study of premarital sexual intercourse among females was made, and a comprehensive list of all empirical propositions was formulated. Second, using this original list of empirical propositions as a guide, a new list of 22 empirical propositions concerned with premarital sexual intercourse among females was developed. A previously unanalyzed data base of 336 never-married Caucasian coeds, in a Southern Standard Metropolitan Statistical Area containing a major medical complex, was used to determine which, if any, of these 22 propositions about premarital sexual intercourse among females were statistically

significant. The medical menstrual history of the respondents was described in hope of eliminating some of the myths and old wives' tales frequently associated with the menstrual cycle. The sexual history of the respondents was also described to provide a basis for the interpretation of findings related to the empirical propositions.

Through treating the data as two independent samples and using a significance level of $p = .05$, 15 of the original 22 empirical propositions tested were found to be either statistically significant or with differences in the stated direction of the proposition for at least one of the independent samples. As was indicated in Chapter IV, in a couple of cases, the data were actually statistically significant in the opposite direction of the stated proposition. This direction was observed in the textual evaluation of the proposition.

Third, those empirical propositions which were found to be statistically significant or in the stated direction of the proposition were developed into seven derived propositions using the process of retroduction. By reapplying the retroduction process, these same derived propositions were formulated into four theoretical propositions.

Fourth, two of the theoretical propositions were then related to the reference group theory model and the exchange theory model to provide a theoretical explanation for pre-marital sexual intercourse among females. Two middle-range

theories of premarital sexual intercourse were then formally stated as the cultural milieu permissiveness theory (Theory I) and the affection theory (Theory II), respectively.

Implications for Future Research

Serendipity Propositions

The process of quality theory construction should, if approached in the true spirit of scientific inquiry, lead to the discovery of new and previously unrecognized propositions (Gibbs, 1972). In the interest of furthering theory building in the substantive area of premarital sexual intercourse among females, the following newly developed propositions are suggested for future consideration by other researchers.

1. There is an inverse relationship between age of first dating alone, where an automobile was used as transportation for the date, and having had premarital sexual intercourse.
2. There is an inverse relationship between age at first wearing a bra and having had premarital sexual intercourse.
3. There is a direct relationship between having engaged in auto-manipulation to orgasm and having had premarital sexual intercourse.
4. There is a direct relationship between the number of times of having been engaged to marry and having had premarital sexual intercourse.

5. There is a direct relationship between residing in a location which is located outside the immediate supervision of the extended family and having had premarital sexual intercourse.
6. There is a direct relationship between being overweight and having had premarital sexual intercourse.
7. There is an inverse relationship between the association of guilt feelings with premarital sexual foreplay and having had premarital sexual intercourse.
8. There is an inverse relationship between the perceived availability of dating partners and having had premarital sexual intercourse.
9. There is a direct relationship between restricting the choice of dating partners to one's own social class position and having had premarital sexual intercourse.
10. There is a direct relationship between membership in a same-sex peer group which exchanges information on sexual behavior and having had premarital sexual intercourse.

Other Propositions from Current Literature
Which Warrant Further Research

Encountered in the research literature were a number of empirical propositions concerned with premarital sexual intercourse among females, for which data were not available for testing in this particular investigation. Those

propositions that appear to warrant further consideration by future researchers in the study of premarital sexual intercourse among females include the following:

1. There is an inverse relationship between age at first marriage and having had premarital sexual intercourse.
2. There is a direct relationship between perceived norms of sexual permissiveness and having had premarital sexual intercourse.
3. There is a direct relationship between length of engagement and having had premarital sexual intercourse.
4. There is an inverse relationship between having had strict discipline in the parental home and having had premarital sexual intercourse.
5. There is an inverse relationship between college grade point average and having had premarital sexual intercourse.
6. There is an inverse relationship between sorority membership and having had premarital sexual intercourse.
7. There is a direct relationship between physical attractiveness and having had premarital sexual intercourse.
8. There is a direct relationship between the use of marijuana and having had premarital sexual intercourse.

9. There is a direct relationship between the use of alcoholic beverages and having had premarital sexual intercourse.
10. There is a direct relationship between use of narcotics (LSD, heroin, etc.) and having had premarital sexual intercourse.

Some Further Methodological Issues

There have been persons, including college and university academicians and administrators, who have questioned the propriety and legitimacy of sex research. Part of this objection has arisen from the fear of community and statewide repercussions if the general public should become aware that sex research was being conducted at a tax-supported college or university. Another aspect of this objection has stemmed from the somewhat biased opinion that persons who want to study sex must have some sort of hidden psychological problem relating to their sexuality. Some sex researchers have even come to be viewed with suspicion by some colleagues in their own academic community.

Future researchers need to develop new concepts to replace the emotionally laden terms permissive and permissiveness. These terms are interpreted by today's college coed to mean that an individual engages in indiscriminate premarital sexual intercourse; yet these same terms are used by some researchers to describe both premarital sexual

intercourse with and without the existence of an affectional bond. Christensen and Reiss have each used these terms in this broad context while engaging in theory construction about premarital sexual intercourse.

The existing research reports contain many unwarranted assumptions about premarital sexual intercourse which need further empirical clarification. For example, the current sexual revolution, which is so commonly misinterpreted to mean the widespread occurrence of frequent sexual orgies by college students, has not been adequately studied or evaluated. Other such assumptions include the relationship between premarital sexual intercourse and marital sexual adjustment; the relationship between premarital sexual intercourse and a shift toward situational morality in the religious outlook of many; and the relationship between premarital sexual intercourse and later participation in extramarital sexual intercourse.

Conclusions

The time has come for family sociologists to stop wasting time making excuses for the absence of adequate theory in the substantive area of premarital sexual intercourse. Unless testable theories are formulated, of what value is a mere series of repetitive, unrelated, and unlinked propositions?

While the popularity of premarital sexual intercourse as an acceptable research topic continues to grow, the

research literature still abounds with reports of data which fail to specify a conceptual frame of reference. This practice would seemingly be unacceptable by today's standards for scholarly work in the field of family sociology.

The cultural milieu permissiveness theory (Theory I) and the affection theory (Theory II) have been proposed in this dissertation. It is hoped that other researchers will choose to subject these theories to further empirical test. For, as Zetterberg has stated, "No specific amount of supporting or contradictory data automatically makes us accept or reject a theory" (Zetterberg, 1965:151-152).

APPENDIX I

FEMALE QUESTIONNAIRE AND ORGASM RATING SHEET

FEMALE QUESTIONNAIRE

CONFIDENTIAL

F FORM

SEX ATTITUDES: A SCIENTIFIC STUDY

The Department of Obstetrics and Gynecology of Southern Medical School and the Department of Sociology of River City College are conducting a scientific study of attitudes associated with sexual behavior and reproductive physiology. Medical education is in need of such information to increase knowledge in these areas of human development. Your participation in this survey will make a significant contribution toward the advancement of medical education.

This questionnaire will require only a minimum amount of your time since most questions appear in tabular form for your convenience. ALL information obtained with this questionnaire will be held in the STRICTEST CONFIDENCE. These data will be reported on a group basis; therefore, you as an individual will remain unidentifiable.

Participation in this survey is completely voluntary. You may refuse to participate by returning this

questionnaire unanswered. There is space for your comments at the end of the questionnaire.

Thank you for your cooperation in this endeavor.

J. Kenneth Davidson, Sr.
Principal Investigator
Assistant Professor of Sociology
River City College

W. A. Scoggin, M.D.
Medical Consultant
Chairman, Department of
Obstetrics and Gynecology
Southern Medical School

Respondent Number _____ (Do not write in this space.)

Marital Status (CHECK ONE)

- ✓ ☐ 0. Single
☐ 1. Married
☐ 2. Widowed
☐ 3. Divorced
☐ 4. Separated

✓ IF MARRIED: How long have you been married? _____
(PLEASE SPECIFY)

J IF NOT MARRIED: What is your current dating status?
(CHECK ONE)

- ☐ 0. Not dating
☐ 1. Casual dating (playing the field)
☐ 2. Dating steadily (same person--very frequently)
☐ 3. Going steady
☐ 4. Engaged-to-be-engaged
☐ 5. Engaged

Age (CHECK ONE)

- ✓ ☐ 0. 15-19 years
☐ 1. 20-24 years
☐ 2. 25-29 years
☐ 3. 30-34 years
☐ 4. 35-39 years
☐ 5. 40-44 years
☐ 6. 45-49 years
☐ 7. 50 years and over

J How many brothers did you have? _____ (PLEASE SPECIFY)

✓ How many sisters did you have? _____ (PLEASE SPECIFY)

J In your family, you were the _____ of _____ children.
(Example: 3rd of 5 children.)

What is your occupation? (CHECK ONE)

- ☐ 0. Unskilled worker
- ☐ 1. Semiskilled worker (garage attendant, bench hand, farm hand, etc.)
- ☐ 2. Skilled worker (automobile mechanic, toolmaker, draftsman, policeman, fireman, enlisted military, licensed practical nurse, etc.)
- ☐ 3. White-collar worker (file clerk, typist, salesman, secretary, bookkeeper, clerk, etc.)
- ☐ 4. Small businessman (retailer, garage operator, etc.)
- ☐ 5. Professional worker (teacher, minister, doctor, lawyer, artist, musician, military officer, registered nurse, etc.)
- ☐ 6. Business executive or professional administrator
- ☐ 7. Farmer
- ☐ 8. Housewife
- ☐ 9. Student

Are you presently employed for salary/wages? (CHECK ONE)

- ☐ 0. Yes
- ☐ 1. No
- ☐ 2. Other _____ (PLEASE SPECIFY)

What was your father's last occupation? (CHECK ONE)

- ☐ 0. No employment history
- ☐ 1. Unskilled worker
- ☐ 2. Semiskilled worker (garage attendant, bench hand, farm hand, etc.)
- ☐ 3. Skilled worker (automobile mechanic, toolmaker, draftsman, policeman, fireman, enlisted military, etc.)
- ☐ 4. White-collar worker (file clerk, typist, salesman, secretary, bookkeeper, clerk, etc.)
- ☐ 5. Small businessman (retailer, garage operator, etc.)
- ☐ 6. Professional worker (teacher, minister, doctor, lawyer, artist, musician, military officer, etc.)
- ☐ 7. Business executive or professional administrator
- ☐ 8. Farmer
- ☐ 9. Not applicable (brought up in institution)

IF MARRIED: Is your spouse presently employed for salary/wages? (CHECK ONE)

- ☐ 0. Yes
- ☐ 1. No
- ☐ 2. Other _____ (PLEASE SPECIFY)

IF MARRIED: What is your spouse's occupation? (CHECK ONE)

- ☐ 0. Unskilled worker
- ☐ 1. Semiskilled worker (garage attendant, bench hand, farm hand, etc.)
- ☐ 2. Skilled worker (automobile mechanic, toolmaker, draftsman, policeman, fireman, enlisted military, etc.)
- ☐ 3. White-collar worker (file clerk, typist, salesman, secretary, bookkeeper, etc.)
- ☐ 4. Small businessman (retailer, garage operator, etc.)
- ☐ 5. Professional worker (teacher, minister, doctor, lawyer, artist, musician, military officer, etc.)
- ☐ 6. Business executive or professional administrator
- ☐ 7. Farmer
- ☐ 8. Student

What was the last level of schooling completed by you? (CHECK ONE)

- ☐ 0. Grades 5-7
- ☐ 1. Grades 8-10
- ☐ 2. Grades 11-12
- ☐ 3. 1st year of college
- ☐ 4. 2nd year of college
- ☐ 5. 3rd year of college
- ☐ 6. 4th year of college
- ☐ 7. Post-graduate degree
- ☐ 8. Vocational school
- ☐ 9. Other _____ (PLEASE SPECIFY)

IF ENROLLED IN SCHOOL: What is your current program of study? (CHECK ONE)

- ☐ 0. Medical school (M.D. program)
- ☐ 1. Nursing-University Hospital
- ☐ 2. Nursing-Medical College of Georgia
- ☐ 3. Nursing assistant-Augusta Tech
- ☐ 4. Medical technology
- ☐ 5. Medical records
- ☐ 6. Medical illustration
- ☐ 7. Radiological technology
- ☐ 8. Other _____ (PLEASE SPECIFY)

IF ENROLLED IN SCHOOL: What is your current class standing? (CHECK ONE)

- ☐ 0. Freshman
- ☐ 1. Sophomore
- ☐ 2. Junior
- ☐ 3. Senior
- ☐ 4. Other _____ (PLEASE SPECIFY)

IF MARRIED AND SPOUSE IS ENROLLED IN SCHOOL: What is your spouse's current program of study? (CHECK ONE)

- ☐ 0. Medical school (M.D. program)
- ☐ 1. Nursing-University Hospital
- ☐ 2. Nursing-Medical College of Georgia
- ☐ 3. Nursing assistant
- ☐ 4. Medical technology
- ☐ 5. Medical records
- ☐ 6. Medical illustration
- ☐ 7. Radiological technology
- ☐ 8. Other _____ (PLEASE SPECIFY)

IF MARRIED AND SPOUSE IS ENROLLED IN SCHOOL: What is your spouse's current class standing? (CHECK ONE)

- ☐ 0. Freshman
- ☐ 1. Sophomore
- ☐ 2. Junior
- ☐ 3. Senior
- ☐ 4. Other _____ (PLEASE SPECIFY)

What is your race? (CHECK ONE)

- ☐ 0. Caucasian (white)
- ☐ 1. Negro
- ☐ 2. Other _____ (PLEASE SPECIFY)

What was the size of the place in which you consider that you grew up? (CHECK ONE)

- ☐ 0. Under 500
- ☐ 1. 500-2,499
- ☐ 2. 2,500-9,999
- ☐ 3. 10,000-24,999
- ☐ 4. 25,000-49,999
- ☐ 5. 50,000-99,999
- ☐ 6. 100,000-249,999
- ☐ 7. 250,000 or more

What is your religious preference?

(PLEASE GIVE A SPECIFIC DENOMINATION)

How many times per month do you attend worship services? (CHECK ONE)

- | | |
|---------------------------------------|--|
| ☐ 0. None | ☐ 4. 7-8 times |
| ☐ 1. 1-2 times | ☐ 5. 9-10 times |
| ☐ 2. 3-4 times | ☐ 6. 11-12 times |
| ☐ 3. 5-6 times | ☐ 7. 13 or more times |

At what age should a FEMALE be before you would recommend that she get married? _____ years (PLEASE SPECIFY)

At what age should a MALE be before you would recommend that he get married? _____ years (PLEASE SPECIFY)

IF UNMARRIED: Do you anticipate that you will marry someday? (CHECK ONE)

- ☐ 0. Yes
- ☐ 1. No

IF YES AND PLAN TO MARRY: Do you plan to be employed before marriage? (CHECK ONE)

- ☐ 0. Yes, full time
- ☐ 1. Yes, Part time
- ☐ 2. No
- ☐ 3. Other _____ (PLEASE SPECIFY)

IF YES AND PLAN TO MARRY: Do you plan to be employed after marriage? (CHECK ONE)

- ☐ 0. Yes, full time
- ☐ 1. Yes, part time
- ☐ 2. No
- ☐ 3. Other _____ (PLEASE SPECIFY)

How many children would you like to have someday? (PLEASE SPECIFY EXACT NUMBER) _____

What do you consider to be the ideal number of children in a family? _____ (PLEASE SPECIFY)

When should a husband and wife have their first child? (CHECK ONE)

- ☐ 0. During the first year of marriage
- ☐ 1. Second year of marriage
- ☐ 2. Third year of marriage
- ☐ 3. Fourth year of marriage
- ☐ 4. Fifth year of marriage
- ☐ 5. Sixth year of marriage
- ☐ 6. Seventh year of marriage
- ☐ 7. Eighth year of marriage
- ☐ 8. Ninth year of marriage or later

Ideally, how many years apart should children be spaced?
(CHECK ONE)

- ☐ 0. Less than one year
- ☐ 1. One year
- ☐ 2. Two years
- ☐ 3. Three years
- ☐ 4. Four years
- ☐ 5. Five years
- ☐ 6. Six years
- ☐ 7. Seven years
- ☐ 8. Eight years
- ☐ 9. Nine years or more

Do you plan to be employed after children are born?
(CHECK ONE)

- ☐ 0. Yes, full time
- ☐ 1. Yes, part time
- ☐ 2. No
- ☐ 3. Other _____ (PLEASE SPECIFY)

If NO: Do you plan to be employed after all your children are in school? (CHECK ONE)

- ☐ 0. Yes, full time
- ☐ 1. Yes, part time
- ☐ 2. No
- ☐ 3. Other _____ (PLEASE SPECIFY)

IF YES: In what grade would your youngest child be before you would want to return to employment?

_____ (PLEASE SPECIFY)

How many children do you have? _____ (PLEASE SPECIFY)

How old were you when you had your first menstrual period?
(CHECK ONE)

- ☐ 0. 8 years of age or if younger _____ (PLEASE SPECIFY AGE)
- ☐ 1. 9 years of age
- ☐ 2. 10 years of age
- ☐ 3. 11 years of age
- ☐ 4. 12 years of age
- ☐ 5. 13 years of age
- ☐ 6. 14 years of age
- ☐ 7. 15 years of age
- ☐ 8. 16 years of age
- ☐ 9. 17 years of age or if older _____ (PLEASE SPECIFY AGE)

To your knowledge, are you pregnant? (CHECK ONE)

- ☐ 0. Yes
- ☐ 1. No
- ☐ 2. Possibly

Have you ever had a pregnancy terminate before the birth of a child? (CHECK ONE)

- ☐ 0. Yes
- ☐ 1. No

IF YES: How did the pregnancy terminate? (CHECK ONE)

- ☐ 0. "Miscarriage" (spontaneous abortion)
- ☐ 1. Induced abortion (performed in place other than licensed hospital)
- ☐ 2. Therapeutic abortion (performed in licensed hospital)
- ☐ 3. Other _____ (PLEASE SPECIFY)

Have you experienced menopause ("change of life")? (CHECK ONE)

- ☐ 0. Yes
- ☐ 1. No
- ☐ 2. Currently going through the "change"

IF YES: Did the menopause ("change of life") occur: (CHECK ONE)

- ☐ 0. Spontaneously (naturally)
- ☐ 1. Surgically (oophrectomy, hysterectomy, etc.)
- ☐ 2. Drugs _____ (PLEASE SPECIFY)
- ☐ 3. X-ray or radium _____

IF YES, HAVING MENSTRUAL PERIODS: Would you classify your menstrual periods as usually: (CHECK ONE)

- ☐ 0. Regular
- ☐ 1. Irregular
- ☐ 2. Other _____ (PLEASE SPECIFY)

How many days apart do your menstrual periods usually occur?

_____ (PLEASE SPECIFY--For additional comments use reverse side of paper.)

How many days does your menstrual flow usually last?

_____ (PLEASE SPECIFY)

✓ Would you classify your menstrual flow usually as:
(CHECK ONE)

- ☐ 0. Very painful
- ☐ 1. Painful
- ☐ 2. Slightly painful
- ☐ 3. Not painful

Do you have to go to bed or miss work or miss school because of menstrual pain? (CHECK ONE)

- ☐ 0. Always (every menstrual period)
- ☐ 1. Frequently
- ☐ 2. Seldom
- ☐ 3. Never

Do you take medicine (other than oral contraceptive) because of menstrual pain? (CHECK ONE)

- ☐ 0. Always (every menstrual period)
- ☐ 1. Frequently
- ☐ 2. Seldom
- ☐ 3. Never

For your menstrual period, do you usually use: (CHECK ONE)

- ☐ 0. Sanitary napkins (Kotex, etc.)
- ☐ 1. Tampons (Tampax, etc.)
- ☐ 2. Both tampons and sanitary napkins
- ☐ 3. Other _____ (PLEASE SPECIFY)

In matters of reproductive physiology, do you consider yourself to be: (CHECK ONE)

- ☐ 0. Very knowledgeable
- ☐ 1. Knowledgeable
- ☐ 2. Slightly knowledgeable
- ☐ 3. Not at all knowledgeable

✓ With regard to the different positions of sexual intercourse, do you consider yourself to be: (CHECK ONE)

- ☐ 0. Very knowledgeable
- ☐ 1. Knowledgeable
- ☐ 2. Slightly knowledgeable
- ☐ 3. Not at all knowledgeable

✓ At what age did you first learn where babies came from?
_____ (PLEASE SPECIFY)

How did you FIRST learn where babies came from? (PLEASE BE SPECIFIC)

At what age did you first learn that females have menstrual periods? _____ (PLEASE SPECIFY)

How did you FIRST learn that females have menstrual periods? (PLEASE BE SPECIFIC)

If a female WANTED TO BECOME pregnant, when during the menstrual cycle, would be the "best" time to have sexual intercourse? (CHECK ONE)

- ☐ 0. During the menstrual period
- ☐ 1. Right after the menstrual period
- ☐ 2. Halfway between the menstrual periods
- ☐ 3. Right before the menstrual period

If a female WANTED NOT TO BECOME pregnant, when during the menstrual cycle, would be the "best" time to have sexual intercourse? (CHECK ONE)

- ☐ 0. During the menstrual period
- ☐ 1. Right after the menstrual period
- ☐ 2. Halfway between the menstrual periods
- ☐ 3. Right before the menstrual period

What has been your BEST source of information about the role of menstruation in female reproductive functioning? (PLEASE BE SPECIFIC)

Do you ever wish that females did not have menstrual periods during the child-bearing years? (CHECK ONE)

- ☐ 0. Always
- ☐ 1. Very frequently
- ☐ 2. Frequently
- ☐ 3. Seldom
- ☐ 4. Never
- ☐ 5. Other _____ (PLEASE SPECIFY)

What factor(s) caused you to arrive at the view expressed in the above question concerning females having menstrual periods? (PLEASE BE SPECIFIC)

What is an orgasm (climax, "cumming") for the female? (PLEASE BE SPECIFIC)

What is an orgasm (climax, "cumming") for the male? (PLEASE BE SPECIFIC)

Do you think that sexual intercourse under ideal circumstances is more pleasurable for: (CHECK ONE)

- ☐ 0. Men usually
- ☐ 1. Women usually
- ☐ 2. Equal for both men and women
- ☐ 3. Other _____ (PLEASE SPECIFY)

Would you indicate each stage of activity that you have EVER participated in with a member of the opposite sex? (Place an "X" in each appropriate category. Use as many categories as necessary.)

- ☐ 0. No physical contact or only holding hands
- ☐ 1. Kissing and hugging
- ☐ 2. Male fondling the female's breasts with his hands outside her clothes
- ☐ 3. Male fondling the female's bare breasts
- ☐ 4. Male fondling the female's genitals through her clothes
- ☐ 5. Male fondling the female's uncovered genitals
- ☐ 6. Female fondling male's genitals through his clothes
- ☐ 7. Female fondling male's uncovered genitals

Have you EVER experienced an orgasm (climax)? (CHECK ONE)

- ☐ 0. Yes
- ☐ 1. No

✓ IF YES: How old were you the FIRST time you experienced an orgasm (climax)? _____ (PLEASE SPECIFY AGE)

✓ IF YES: What were your feelings and/or reactions after having experienced an orgasm (climax) for the first time? (PLEASE SPECIFY)

✓ Have you EVER experienced an orgasm (climax) while petting with a member of the opposite sex? (CHECK ONE)

- ☐ 0. Yes
- ☐ 1. No

✓ IF YES: How often have you experienced an orgasm (climax) while petting with a member of the opposite sex? (CHECK ONE)

- ☐ 0. Always
- ☐ 1. Usually
- ☐ 2. Occasionally
- ☐ 3. Rarely

✓ IF YES, EXPERIENCED ORGASM (CLIMAX) WHILE PETTING: Are/were you satisfied with this level of intimacy? (CHECK ONE)

- ☐ 0. Yes
- ☐ 1. No
- ☐ 2. Other _____ (PLEASE SPECIFY)

✓ IF NO: Why are/were you NOT satisfied with this level of intimacy? (PLEASE SPECIFY)

✓ Have you EVER had sexual intercourse? (CHECK ONE)

- ☐ 0. Yes
- ☐ 1. No

✓ IF YES, HAD SEXUAL INTERCOURSE: How old were you the first time you had sexual intercourse?
_____ years (PLEASE SPECIFY)

Would you classify your first sexual intercourse as:
(CHECK ONE)

- ☐ 0. Very pleasurable
- ☐ 1. Pleasurable
- ☐ 2. Unpleasurable
- ☐ 3. Very unpleasurable
- ☐ 4. Other _____ (PLEASE SPECIFY)

What were your feelings and/or reactions after having experienced sexual intercourse for the first time?
(PLEASE SPECIFY)

After your first sexual experience, how many times did you have sexual intercourse with that person? (CHECK ONE)

- ☐ 0. Not again
- ☐ 1. 1-2 times
- ☐ 2. 3-5 times
- ☐ 3. 6-10 times
- ☐ 4. 11 or more times

With how many different persons have you had sexual intercourse? _____ (PLEASE SPECIFY)

Please classify your relationship with EACH of the DIFFERENT persons with whom you have had sexual intercourse.
(Place an "X" in each appropriate category. Use more than one category if more than one partner for sexual intercourse.)

- ☐ 0. Spouse
- ☐ 1. Fiancé (e)
- ☐ 2. Friend
- ☐ 3. Dating partner
- ☐ 4. Prostitute
- ☐ 5. Relative other than spouse
- ☐ 6. Casual pick-up
- ☐ 7. Mistress or lover
- ☐ 8. Other _____ (PLEASE SPECIFY)

IF YES, HAD SEXUAL INTERCOURSE: Have you ever experienced an orgasm (climax) while having sexual intercourse?
(CHECK ONE)

- ☐ 0. Yes
- ☐ 1. No
- ☐ 2. Other _____ (PLEASE SPECIFY)

✓ IF YES: How often during sexual intercourse do you experience an orgasm (climax)? (CHECK ONE)

- ☐ 0. Always
- ☐ 1. Usually
- ☐ 2. Occasionally
- ☐ 3. Rarely
- ☐ 4. Never

✓ Have you ever experienced an orgasm (climax) either PRIOR TO or JUST AFTER sexual intercourse? (CHECK ONE)

- ☐ 0. Yes
- ☐ 1. No
- ☐ 2. Other _____ (PLEASE SPECIFY)

✓ IF YES: How often do you experience an orgasm (climax) either PRIOR TO or JUST AFTER sexual intercourse? (CHECK ONE)

- ☐ 0. Always
- ☐ 1. Usually
- ☐ 2. Occasionally
- ☐ 3. Rarely
- ☐ 4. Never

✓ Have you ever heard and/or read anything about having or not having sexual intercourse during the menstrual period? (CHECK ONE)

- ☐ 0. Yes
- ☐ 1. No

IF YES, HEARD AND/OR READ ABOUT SEXUAL INTERCOURSE DURING THE MENSTRUAL PERIOD: List all the sources from which you have heard and/or read about having or not having sexual intercourse during the menstrual period. Indicate what each said about sexual intercourse during the menstrual period. (PLEASE SPECIFY)

✓ Were you ever, personally, advised about having sexual intercourse during the menstrual period? (CHECK ONE)

- ☐ 0. Yes
- ☐ 1. No

✓ IF YES, ADVISED ABOUT SEXUAL INTERCOURSE DURING MENSTRUAL PERIOD: Who advised you about having sexual intercourse during the menstrual period? (PLEASE SPECIFY)

✓ What were you advised about sexual intercourse during the menstrual period? (Place an "X" in each appropriate category.)

- ☐ 0. All right if you desire it
- ☐ 1. Abstain for religious reasons
- ☐ 2. Abstain for health reasons
- ☐ 3. Abstain because it's messy
- ☐ 4. Abstain because it's painful to the female
- ☐ 5. Abstain because you can get disease
- ☐ 6. Abstain because it's abnormal to want sexual intercourse during this time
- ☐ 7. Go ahead, sexual intercourse will be better for the female
- ☐ 8. Other _____ (PLEASE SPECIFY)

✓ IF YES, HAD SEXUAL INTERCOURSE: Have you ever had sexual intercourse during the female's menstrual period? (CHECK ONE)

- ☐ 0. Yes
- ☐ 1. No

✓ IF YES: How often do you have sexual intercourse during the menstrual period? (CHECK ONE)

- ☐ 0. More frequently than at other times during the menstrual cycle
- ☐ 1. Just as frequently as at other times during the menstrual cycle
- ☐ 2. Less frequently than at other times during the menstrual cycle
- ☐ 3. Rarely
- ☐ 4. Never

✓ IF YES, HAD SEXUAL INTERCOURSE DURING THE MENSTRUAL PERIOD: In your own experience, is sexual intercourse during the menstrual period: (CHECK ONE)

- ☐ 0. More enjoyable than at other times
- ☐ 1. The same as at other times
- ☐ 2. Less enjoyable than at other times because of hygienic reasons
- ☐ 3. Less enjoyable than at other times because of pain or discomfort
- ☐ 4. Other _____ (PLEASE SPECIFY)

✓ IF YES, HAD SEXUAL INTERCOURSE DURING MENSTRUAL PERIOD:
What has been your partner's reaction to having sexual intercourse during the menstrual period? (PLEASE SPECIFY)

✓ IF YES, HAD SEXUAL INTERCOURSE DURING MENSTRUAL PERIOD:
Would you advise someone to have sexual intercourse during the menstrual period? (CHECK ONE)

- ___ 0. Yes
- ___ 1. No

✓ IF NO: Why would you NOT advise someone to have sexual intercourse during the menstrual period? (PLEASE SPECIFY)

✓ DURING MENSTRUAL PERIOD, IF NEVER HAD SEXUAL INTERCOURSE:
What would be your reactions to EVER having sexual intercourse during the menstrual period? (PLEASE BE SPECIFIC)

✓ When do you have the STRONGEST sexual desire during the menstrual cycle? (CHECK ONE)

- ___ 0. During the menstrual period
- ___ 1. Just after the menstrual period
- ___ 2. Halfway between the menstrual period
- ___ 3. Just before the menstrual period
- ___ 4. Other (PLEASE EXPLAIN)

✓ When do you have the LEAST sexual desire during the menstrual cycle? (CHECK ONE)

- ___ 0. During the menstrual period
- ___ 1. Just after the menstrual period
- ___ 2. Halfway between the menstrual period
- ___ 3. Other (PLEASE EXPLAIN)

↓ IF HAD SEXUAL INTERCOURSE: How often do you currently have sexual intercourse? _____ times per _____ (PLEASE SPECIFY)

↓ Are you satisfied with the current frequency that you have an orgasm (climax) with sexual intercourse? (CHECK ONE)

- ☐ 0. Yes
☐ 1. No

↓ IF NO: Why, in your opinion, does an orgasm (climax) not occur more frequently for you? (PLEASE SPECIFY)

↓ Are you SATISFIED with the current frequency that you have sexual intercourse? (CHECK ONE)

- ☐ 0. Yes
☐ 1. No

↓ IF NO: Do you desire sexual intercourse: (CHECK ONE)

- ☐ 0. More frequently
☐ 1. Less frequently

↓ IF SEXUAL INTERCOURSE DESIRED MORE FREQUENTLY: Why, in your opinion, does sexual intercourse not occur more frequently for you? (PLEASE SPECIFY)

↓ Have you ever heard and/or read of ANY reasons for/or against self-masturbation (self-stimulation) by males or females? (CHECK ONE)

- ☐ 0. Yes
☐ 1. No

↓ IF YES: List all reasons for and/or against self-masturbation (self-stimulation) by males or females (PLEASE SPECIFY)

- ↓ If asked, what advice would you give a male or female about engaging in self-masturbation (self-stimulation)?
(PLEASE SPECIFY)

- ↓ Have you ever heard and/or read of any reasons for/or against oral-genital sexual relations ("69," "French style") between a male and a female? (CHECK ONE)

0. Yes
 1. No

IF YES: List ALL reasons for and/or against oral-genital sexual relations ("69," "French style") between a male and a female. (PLEASE SPECIFY)

- ↓ If asked, what advice would you give a male or a female about engaging in oral-genital sexual relations ("69," "French style")? (PLEASE SPECIFY)

Name all the different EFFECTIVE methods of contraception that you know. (PLEASE SPECIFY)

- ↓ Do you now or have you ever in the past, used contraceptives?
(CHECK ONE)

0. Yes, successfully
 1. Yes, unsuccessfully
 2. No
 3. No, but would like to
 4. No, and would not like to
 5. Other _____ (PLEASE SPECIFY)

- ↓ IF EVER USED CONTRACEPTIVES: What contraceptive have you and/or your sex partner EVER used? (PLEASE LIST)

✓ Have you ever used an oral contraceptive ("the pill") NOT to avoid pregnancy but for medical purposes only? (CHECK ONE)

- ☐ 0. Yes
☐ 1. No

✓ Which contraceptive do you consider most effective for preventing pregnancy? (PLEASE SPECIFY)

✓ Which contraceptive do you consider MOST ACCEPTABLE to you? (PLEASE SPECIFY)

✓ Why is this particular contraceptive MOST ACCEPTABLE to you? (PLEASE SPECIFY)

✓ Would you recommend this contraceptive that you consider the MOST ACCEPTABLE to a friend or relative? (CHECK ONE)

- ☐ 0. Yes
☐ 1. No

✓ IF NO: Why would you NOT recommend this contraceptive to a friend or relative? (PLEASE SPECIFY)

What primary effect would the permanent ABSENCE of a father have on the children of a family? (PLEASE BE SPECIFIC)

✓ How important do you consider the presence of a father, in the home, when there are children? (CHECK ONE)

- ☐ 0. Very important
☐ 1. Important
☐ 2. Unimportant
☐ 3. Very unimportant

COMMENTS ON QUESTIONNAIRE:

↓ Describe, in your own words, what typically happens to the female physically and mentally when she has an orgasm (climax, "cumming").

THANK YOU FOR YOUR PARTICIPATION

APPENDIX II

TABLES

Experience with Premarital Sexual Intercourse, by Sample, and Heard Pros-Cons About Oral-Genital Sex

Heard Pros-Cons About Oral-Genital Sex	Allied Health ^a				River City ^b							
	Experienced		Inexperienced		Experienced		Inexperienced					
	No.	Percent	No.	Percent	No.	Percent	No.	Percent				
Yes	41	62.1	40	34.8	81	44.8	13	56.5	24	25.5	37	31.6
No	25	37.9	75	65.2	100	55.2	10	43.5	70	74.5	80	68.4
Totals	66	36.5	115	63.5	181 ^c	100.0	23	19.7	94	80.3	117 ^d	100.0

 $\chi^2_a = 12.67; p = .001; d.f. = 1; C = .256.$ $\chi^2 = 8.22; p = .01; d.f. = 1; C = .256.$

c Does not include "no response" for 15 respondents.

^d Does not include "no response" for 23 respondents.

TABLE 53
Experience with Premarital Sexual Intercourse, by Sample, and Heard Pros-Cons About Masturbation

Heard Pros-Cons About Masturbation	Allied Health ^a				River City ^b							
	Experienced		Inexperienced		Experienced		Inexperienced					
	No.	Percent	No.	Percent	No.	Percent	No.	Percent				
Yes	42	62.7	71	62.3	113	62.4	16	64.0	58	58.0	74	59.2
No	25	37.3	43	37.7	68	37.6	9	36.0	42	42.0	51	40.8
Totals	67	37.0	114	63.0	181 ^c	100.0	25	20.0	100	80.0	125 ^d	100.0

^a $\chi^2 = .003$; $p = .94$; d.f. = 1; $C = .004$.

^b $\chi^2 = .30$; $p = .58$; d.f. = 1; $C = .049$.

^cDoes not include "no response" for 15 respondents.

^dDoes not include "no response" for 15 respondents.

TABLE 54

Experience with Premarital Sexual Intercourse, by Sample, and Heard and/or Read About Sexual Intercourse During Menstrual Period

Heard and/or Read About Sexual Intercourse During Menstrual Period	Allied Health ^a				River City ^b			
	Experienced		Inexperienced		Experienced		Inexperienced	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Yes	49	74.2	79	68.1	128	70.3	19	76.0
							77	75.5
No	17	25.8	37	31.9	54	29.7	6	24.0
							25	24.5
Totals	66	36.3	116	63.7	182 ^c	100.0	25	19.7
							102	80.3
							127 ^d	100.0

^a $\chi^2 = .76$; $p = .41$; d.f. = 1; $C = .065$.

^b $\chi^2 = .003$; $p = .94$; d.f. = 1; $C = .005$.

^cDoes not include "no response" for 14 respondents.

^dDoes not include "no response" for 13 respondents.

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BIOGRAPHICAL SKETCH

John Kenneth Davidson, Sr., the son of Mr. and Mrs. Larcie Charles Davidson, was born in Augusta, Georgia, on October 25, 1939. He was graduated from Evans High School in 1956.

In 1959, he received a two-year diploma from Augusta College. He graduated from the University of Georgia with the degree of Bachelor of Science in Education in 1961 and was elected a member of Kappa Delta Pi. He was awarded a graduate assistantship in the Department of Sociology at the University of Georgia and, in 1963, received the degree of Master of Arts with a major in sociology. He was subsequently elected to membership in Phi Kappa Phi.

From 1963 to 1967, Mr. Davidson was an assistant professor in the Department of Psychology and Sociology at Armstrong State College in Savannah, Georgia. He served as project director for the Armstrong State Union Bag Corporation Athletic Association recreational survey. He was an assistant professor in the Department of Anthropology and Sociology at Augusta College in Augusta, Georgia, from 1967 to 1974.

He has been research instructor and has served as research consultant to the Department of Obstetrics and

Gynecology at the Medical College of Georgia. He was the principal investigator for a study entitled "Sex Attitudes and Behavior in a Medical Milieu." Mr. Davidson has also been employed as a research associate and research consultant in the Department of Pediatrics at the Medical College of Georgia while serving as associate director for a research project entitled "Children and Youth Project Impact on Health Care Knowledge, Attitudes, and Practices (KAP)," funded by a federal grant from the Child and Maternal Health Service. Additionally, he has served as research consultant to the Department of Community Dentistry in the School of Dentistry at the Medical College of Georgia.

In 1971, he was awarded a graduate teaching assistantship in the Department of Sociology at the University of Florida. Since that time, Mr. Davidson has been engaged in graduate studies leading toward the degree of Doctor of Philosophy with a major in the sociology of the family and a minor in the sociology of social organizations. He was elected a member of Alpha Kappa Delta and has since been elected a member of the national executive committee. In the fall of 1974, he became an assistant professor in the Department of Sociology at Indiana University at South Bend.

Mr. Davidson holds memberships in numerous civic and professional organizations. He is listed in the 1969, 1971, and 1973 editions of Who's Who in the South and Southwest.

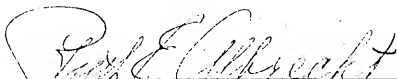
He is married to the former Josephine Frazier of Hattiesburg, Mississippi, and is the father of two sons, John Kenneth, Jr., and Stephen Wood.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



Gerald R. Leslie, Chairman
Professor of Sociology

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Ruth E. Albrecht
Professor of Sociology

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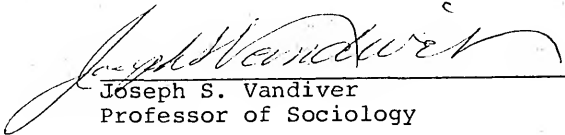
Felix M. Berardo
Professor of Sociology

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This dissertation was submitted to the Graduate Faculty of the Department of Sociology in the College of Arts and Sciences and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

December, 1974

Dean, Graduate School